DOCUMENT RESUME

ED 228 786 EC 151 640

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TITLE	Towards a Communication Curriculum for Hearing-Impaired Pupils: Report of the National Workshop on Language Curriculum Development for Hearing-Impaired Pupils (Melbourne, Australia, November 23-27, 1980). Occasional Paper Number One.
INSTITUTION	Mount Gravatt Coll. of Advanced Education, Mt. Gravatt (Australia).
SPONS AGENCY	Australian Education Research and Development Committee, Canberra.; Australian Schools Commission, Canberra.
REPORT NO	ISBN-0-909291-15-2
PUB DATE	Jan 81
NOTE	139p.
AVAILABLE FROM	Centre for Human Dev. Studies, D. J. Power, Brisbane College of Adv. Ed., Mt. Gravatt Camp., P.O. Box 82, Mt. Gravatt, Queensland, Australia, 4122 ($1.00).
PUB TYPE	Collected Works - Conference Proceedings (021) -- Viewpoints (120)
EDRS PRICE	MF01/PC06 Plus Postage.
DESCRIPTORS	*Communication Skills; Curriculum Evaluation; Foreign Countries; *Hearing Impairments; *Instructional Materials; Learning Activities; *Speech Communication; *Teaching Methods
IDENTIFIERS	Australia

ABSTRACT

Information on curriculum development, teaching methods, and research and evaluation needs for communication curricula for hearing impaired pupils is presented in this report of a Melbourne (Australia) workshop. In addition to summary statements of the workshop sessions, the following two papers are presented: "On the Provision of Authentic Language Learning Environments for Hearing-Impaired Pupils" (D. J. Power); and "Approaches to the Teaching of Language to Hearing-Impaired Pupils" (M. S. Hollingshead). The workshop topics include: principles for communication curriculum development for the hearing impaired; curriculum techniques and materials; features of conversational approaches in language programming; features of activity-based learning approaches for the development of communication competence, a list of 24 materials/curricula for teaching communication competence, a list of 22 materials for evaluating communication competence, criteria for selecting and evaluating instructional material, and an article entitled, "Daily Round Communication Activities Collection" (D. J. Power). (SEW)

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OCCASIONAL PAPER NUMBER ONE

CENTRE for HUMAN DEVELOPMENT STUDIES

TOWARDS A COMMUNICATION CURRICULUM FOR HEARING-IMPAIRED PUPILS:

REPORT OF THE NATIONAL WORKSHOP ON LANGUAGE CURRICULUM DEVELOPMENT FOR HEARING-IMPAIRED PUPILS

Edited by
D.J. Power, Ph.D.

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TOWARDS A COMMUNICATION CURRICULUM FOR HEARING-IMPAIRED PUPILS : REPORT OF THE NATIONAL WORKSHOP ON LANGUAGE CURRICULUM DEVELOPMENT FOR HEARING-IMPAIRED PUPILS

NOVEMBER, 1980

Edited
by
D.J. Power, Ph.D.

Funds for the Workshop were provided by the Education Research and Development Committee and the Schools Commission State Teacher Development Committees

MT. GRAVATT COLLEGE OF ADVANCED EDUCATION
CENTRE FOR HUMAN DEVELOPMENT STUDIES

JANUARY, 1981

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FOREWORD

The Workshop reported on in this volume was conducted by the Centre for Human Development Studies of Mt. Gravatt College of Advanced Education at Newman College at Melbourne University from November 23 - 27, 1980. Funds for mounting the workshop were provided by the Education Research and Development Committee. Travel funds were provided in the various states and territories by the Schools Commission Teacher Development Committees. We are grateful to all of these bodies for their support.

The involvement of the Education Research and Development Committee stems from a previous grant to D.J. Power for a project in 1976-78 entitled "Methods for Teaching Language to Deaf Children". This Workshop represents the second stage in the dissemination of the results of that research, the earlier reports of which will be found in the bibliography below.

I am grateful to all those who attended the Workshop for the stimulating and useful days (and nights!) of discussion and writing. I am particularly grateful to the group leaders Joe Corbett, Jenny Dowell, Merv Hyde, and Ray Jeanes. Anne Hollingshead provided a challenging stimulus to all the members of the Workshop throughout, and we are particularly indebted to her for her contributions.

Two special papers were presented at the Conference and are included here. The rest of the Report consists of summary statements of the deliberations of the members of the Workshop, both in small groups and in plenary sessions. Although all members of the Workshop have been involved in the development and editing process for the Report, I must take responsibility for the final form of all statements to which authors are not attributed. Sandra Canham and Nancy Neilson types the several versions of the Report.

We hope that the statements of principle and practice evolved in the Workshop will form the basis for further projects in this area, as we found that there is a need for considerable development of

existing knowledge, as well as several areas in which knowledge is very much lacking, and in which initial research and development needs to be done. We would urge central funding authorities and education departments to co-ordinate with schools and tertiary institutions to provide funds to develop such projects.

D.J.P.
Mt. Gravatt,
January, 1981.

Further copies of this Report are available for the cost of postage, $1.00 within Australia.

CONTENTS OF A COMMUNICATION CURRICULUM FOR HEARING-IMPAIRED PUPILS

We believe that the following outline represents the contents of a communication curriculum for hearing-impaired pupils. In keeping with the principle that each school or service should develop its own curriculum, we believe that this statement should be used as a basis for developing local curricula which will meet the individual needs of each service.

Each section needs to be expanded, making eventually a quite extensive set of documents, and we believe a project to give teachers and consultants an opportunity to develop such documents is an urgent need. Model documents could be produced by such a project that would enable services to adapt them to their own circumstances.

Contents of a Communication Curriculum

(a) General Principles

1. A statement of principles of the acquisition of communication competence in general.
2. A statement of the rationale for developing/teaching communication competence to hearing-impaired pupils particularly.
3. A statement of developmental sequences for communication competence at all levels : phonological, syntactic, semantic, and pragmatic; and under all aspects : linguistic, paralinguistic and non-linguistic.

(b) Resources

1. Environments in which and strategies by which communication competence may be developed.
2. A statement regarding the rationale upon which materials and resources for communication competence teaching should be developed.
3. A statement of the range of existing materials and resources for teaching various levels and aspects of communication competence and recommendations on areas needing further development.

(c) Implementation

1. A statement of the general principles of development, implementation and evaluation of a communication competence curriculum at the school level.
2. A bibliography of further reading.

(d) Evaluation

1. A statement of the rationale for evaluating pupil learning of communication competence.
2. A statement of existing techniques for evaluating communication competence at all levels and under all aspects.

PRINCIPLES FOR COMMUNICATION CURRICULUM DEVELOPMENT FOR HEARING-IMPAIRED PUPILS

Preliminary Statement

We believe that curriculum design should establish a continuum of overlapping developmental programmes, rather than units of study which may be interpreted as ends in themselves. Activities derived from such a curriculum should always be able to be seen as enjoyable and useful ends in their own right, as well as contributing to the child's further development. One model of such a curriculum design would be the so-called "spiral curriculum" which places emphasis on interaction and interdependence of its elements, with a continual return to previous materials at higher levels (Blackwell, Engen, Fischgrund and Zarcadoolas, 1978).

Communication Curriculum Philosophy

The aim of such a curriculum should be the development of each individual's communicative competence (Hymes, 1972; Breen and Candlin, 1979; Ingram, 1979). Inherent in this philosophy is that each child should have the opportunity to develop non-linguistic (gesture, body language, and facial expression characteristics), para-linguistic (particularly supra-segmental speech characteristics) and linguistic (structural, i.e., syntactic) features of communicative competence as found in his various communities (home, school, neighbourhood, etc.).

Approaches to communication curriculum development should be guided by features of the normal language acquisition process, with emphasis on conversational and communicative interaction with a variety of appropriate models, using authentic language in natural settings. In addition, specific language teaching programmes will be needed at appropriate developmental levels (Ingram, 1979).

The communication curriculum must encourage ongoing and periodic evaluation of the child's progress and the programme itself.

While we believe that every hearing-impaired child should have the opportunity to develop the oral competence of which he is capable, we value the sign language of the deaf, and feel that many deaf pupils will need to become "bi-cultural". These pupils should be allowed the opportunity for access to the deaf community and its language as well as the fullest possible access to the hearing community and its language. We believe that the principles of curriculum development, methods and materials development and application, and the process of evaluation are neutral and apply equally well to the use of oral or manual methods. Because we value English for all hearing-impaired children as necessary in the wider community, we believe that the method of input of language for those children who require manual communication should, for classroom learning purposes, be that form known as "Signed English". (This does not preclude the use of sign language or other forms of manual communication for those pupils whose needs may dictate it.) For the purposes of this report, Cued Speech may be seen as an oral method.

Principles of Communication Curriculum Development.

We believe that the following principles should be characteristic of any communication curriculum for hearing-impaired children and that they should be taken into account in developing such a curriculum.

To be implemented effectively, these principles should be agreed to by the whole school staff. It is imperative for successful communication curriculum development and implementation that each school should have a statement of principles to follow and that these should be subject to regular review and evaluation. We would recommend that every school should have a "Communication Statement" in which these principles are available for public inspection and evaluation, and which should be sufficiently broad to cater for:

(a) The many different teaching styles and approaches of teachers. These principles should not in any way dictate specific teaching techniques. It is recognised that teachers must employ their individual expertise and experience to incorporate these principles in their teaching. Teachers with exceptional expertise in certain areas should be encouraged to share it with their colleagues.

(b) Individual needs of pupils. Some basic principles underlying communication curriculum development are:

1. Communication experience begins from the earliest moments of life. Communicative competence is intertwined with and dependent upon cognitive and social development.
2. The child's attempts at communication should be valued as meaningful, irrespective of the "correctness" of their form.
3. Linguistic competence includes phonologic, syntactic, semantic, and pragmatic features. Communicative competence includes linguistic, non-linguistic and para-linguistic features. All these features of language and communication should be an integral part of the school communication curriculum.
4. Initially, hearing-impaired children should acquire language through a normal mother-child interaction model (conversational approach). When a child of school age is assessed as having a significant language delay, this conversational approach should be supplemented by systematic teaching based on principles of normal language development.
5. The curriculum must concurrently provide the following situations in which language acquisition can occur:
   - conversation
   - facilitative activities (in which language development is secondary to the activities themselves)
   - specific and systematic language teaching (see Figure 1).
6. The child's current linguistic competence is the starting point of any language programme, and this competence needs to be continuously and systematically monitored by an adequate evaluation programme. (See below for principles of evaluation.)
7. A curriculum should involve a dynamic process in which the child actively participates. Since language is acquired through use, child-based activities and first-hand experiences should be the major vehicle for development.
8. Syntactic development depends entirely on a firm foundation of meaning (semantics).

9. Given that language is best acquired in meaningful situations with competent models, opportunities should be devised (both within and outside the classroom) to widen access to authentic interactions with a variety of people, taking into consideration a child's level of competence and confidence.
10. Language has a variety of uses for communicative functions and different forms may be used to express the same functions when situations and communication partners vary, just as different functions may on some occasions be expressed by the same form. It is important that children acquire these pragmatic features of language.

Level	Language Learning Situations		
	Conversation	Activity Based	Specific Teaching
Phonological			
Syntactic			
Semantic			
Pragmatic			

Figure 1 : Components of a communication curriculum for hearing-impaired pupils.

It should be noted that although we have, in Figure 1, separated out the levels of language, in real life they all come together in pragmatics - the use of language. It is this factor which makes it essential that language learning situations be developed which are as close to authentic settings as possible. However, particularly in the "specific teaching" mode, attention can be devoted to particular elements of the various levels to ensure that children are exposed to them, because (as Power and Hollingshead, 1978 have pointed out) the use of "uncontrolled"

conversation approaches only means that the low frequency, particular complexity, or the unstressed nature of some language elements may mean that deaf children find them very difficult to acquire. This provides the justification for specialised teaching of such particular elements.

We now proceed to develop some principles for the application of the elements in Figure 1.

LEVELS OF LANGUAGE WHICH NEED TO BE INCLUDED IN A LANGUAGE CURRICULUM.

Phonological

Phonological aspects of language are those to do with its sound system. Traditionally, the phonological system has been divided up into two major aspects - articulatory factors and supra-segmental paralinguistic factors. Articulatory factors are those to do with the pronunciation of the individual sounds of the language, and the supra-segmental factors are those to do with those aspects of the sound system which carry across more than one phoneme or word. These latter factors include such things as stress, juncture, intonation, timing, and so forth.

We have little to say about the phonological aspects of communication competence in this Report, except to point out that traditionally teachers of the hearing-impaired have probably been too concerned with articulation aspects of the phonological system, and not enough with the supra-segmental aspects. To further compound the problem, articulation teaching has over-emphasised the teaching of sounds in isolation, while ignoring the importance of transitions between sounds. This balance has recently been redressed in modern theoretical and practical writing. This is important because it is the supra-segmental characteristics of speech which give meaning to communication and this should be reflected in our teaching.

For detailed examination of the development of the phonological aspects of communication competence we would refer readers to such modern texts as Ling (1976), Calvert and Silverman (1975) and Iverson, Adamson and Cronin (1979).

Syntactic

The syntactic level of communication competence has always been a main focus of teachers of the hearing-impaired. This is reasonable, in that in many respects, the disability of hearing impairment has its major impact upon the development of syntactic expression in the standard vernacular of the surrounding hearing community. However, the emphasis upon syntax teaching has often been at the expense of the semantic and

pragmatic levels, and we hope that the stresses we place in this Report will do something to redress this balance. However, it is still of major importance to develop and teach syntax to hearing impaired pupils in each of the three language learning situations we have shown in Figure 1.

Most of the materials development and evaluation techniques which we consider in this report are at the syntactic level, and we would refer to the reader to detailed consideration of these matters therein. Surveys of the syntactic elements of English are now widely available, and we would refer to Leech and Svartvik (1975) and Russell, Quigley, and Power (1976) among others. The series of volumes in the TSA Syntax Program edited by Quigley and Power (1979 - 81) also provide summary tables of major aspects of English syntax, and their normal development in hearing and hearing-impaired children.

Semantic

Little can be said here about the development of children's understanding of the semantics of language, as little is known about it at primary school age. Various meanings of "semantics" appear in the literature, from the interaction of lexis (vocabulary) and syntax to produce sentence meaning, to a general conceptualisation of the world, and its expression in such language categories as mass/count nouns, transitive/intransitive verbs, comparison, etc., to an even broader concept of human interaction with the physical world in a Piagetian sense, e.g., that released objects fall, etc.

We can say little about such matters here, except to note that it may not be necessary to "teach" in this area as far as non-intellectually handicapped hearing-impaired children are concerned, as their cognitive and linguistic interaction with the world will generally provide them with an adequate semantic basis for their language -- provided that their early (and continuing) experience of the world and people is not so constricted as to reduce the materials available for them to work on. (The particular problems in this area posed for children who are intellectually handicapped as well as hearing-impaired, we do not have the space to address. We note that further attention should be given to this matter.)

We say little in this Report about that aspect of semantics that we have called "lexis" - the vocabulary needed to construct sentences. As with most aspects of language, hearing-impaired pupils have problems in developing an adequate vocabulary to express their interpretations of the world and their meanings.

The particular problems posed in this area were not considered during the Workshop. We note in general that vocabulary should not be rote-taught out of a context of authentic experience and need, but should emerge naturally from the child's interactions with the world, including (at appropriate levels) the world of academic learning both from oral and pictorial media and from books.

We would recommend that considerably more work be done in this area.

Pragmatic

This level of language is the one that is generally least understood and hence has not been well developed in teaching hearing-impaired pupils because it has not been generally brought to the awareness of teachers. It may well be that hearing-impaired pupils' competence is well developed at the pragmatic level of language as, despite a lack of research, it is our impression that deaf individuals, both child and adult, seem to cope quite well in this respect for the ordinary purposes of daily life. However, we believe that there is still considerable room for improvement as it is at this level of language : language in use, in which all the preceding aspects of language come together to make language functional for the user.

The recent literature has begun to provide descriptions of the pragmatic level of language which will be useful in developing materials for teaching these to hearing-impaired pupils, and we would refer readers to the work of Rees (1978), Halliday (1975), Tough (1976) and Walker (n.d.). Halliday, in particular, provides an interesting description of the development of pragmatic abilities in language, which while largely focussed on the semantic level, is expressive of the kinds of areas that

need to be covered at this level. (It should be noted that much of the pragmatic and semantic level of language is not expressed in linguistic form, but is largely non-linguistic, i.e., is carried by such aspects of the communication code as gesture, facial expression, body stance and tension, and so forth.) However, there is still a linguistic element at this level, and we provide Halliday's Phase One description of early functional use of language as an example of the kinds of areas which need to be considered:

1. The instrumental, or the "I want" function. This is the function of language to get for the child objects and services that satisfy his needs.
2. The regulatory, or the "Do as I tell you" function. This is the function of language to get someone to do something and is different from an instrumental function in focusing on the agent rather than on the object.
3. The interactional, or the "me and you" function. In this function the child uses language to interact with the important others of his environment.
4. The personal, or the "here I come" function. This is language used to express the self and to include the speaker into the speech event.
5. The heuristic, or the "tell me why" function. This is language used to explore the environment and to learn and is represented in its earliest appearances by the request for names of objects.
6. The imaginative, or the "let's pretend" function. This is using language to create a make-believe environment, ranging from sound play to story telling and eventually the uses of language as an art form.
7. The representational, or "I've got something to tell you" function, which has to do with communicating information, describing, etc.

"Real life language usage" needs to be seen in a context of situations, purposes, and "talk".

Situations

A. Frequency

1. Talking to : (intimate contact) - family
   - friends
   - workmates
2. (Familiar contact) - buying things in a shop
   - travelling on transport
   - going to the pictures
   - talking to neighbours/club members, etc.
3. (Periodic contact) - talking to a stranger
   - visiting the doctor
   - talking to the boss
4. Novel contact
   - handling salesmen
     (car insurance, real estate, etc.)

B. Purposes

1. Expressive, e.g.,
   - to make sense of our selves
   - to help in understanding the world
2. Controlling, e.g.,
   - to bludgeon and abuse people
   - to keep people at bay
   - to regulate and control
   - to persuade
   - to deceive
3. Exchange, e.g.,
   - to encourage
   - to justify
   - more rarely : to communicate facts from one to another
   - even more rarely : to convey information to people who already have it.

C. Types of talk

a. - questioning
   - responding
   - spontaneous comments

b. - naming or referring
- expression : feelings
: needs
: preferences
: ideas
- stating intentions
- thinking aloud (private speech)
- retelling
- relating past experiences
- describing
- explaining
- relaying messages
- discussing
- arguing
- denying
- rejecting

c. - social exchanges : greeting
: farewelling
: introducing
: inviting
: thanking
: requesting
- negotiating
- predicting events
- justifying
- coaching
- criticising
- judging
- interviewing
- planning
- encouraging
- discouraging
- prohibiting
- reasoning
- arguing logically.

Similar analyses have been made by Tough (1976) and Walker (n.d.). We provide Walker's analysis as another example of the kind of "discourse functions" that need to be considered as necessary parts of the communication repetoire of hearing-impaired people, and which, hence, need to be included in a communication curriculum (Figure 2).

We note elsewhere that these aspects of the communication curriculum are not well developed, and much attention needs to be devoted to techniques for teaching and evaluating hearing-impaired pupils' competence in this area. We would suggest that collection of data along the lines of the "Daily Round Communication Activities Collection" (Appendix A) would be a useful beginning to determine the needs in this area, and to evaluate progress.

In conclusion, we would note that although it is possible to analyse out these levels of communication competence, in real-life they are inseparable, and converge upon the pragmatic use of language in authentic settings. They all interact with one another, to the extent that the phonological is largely determined by the interaction of syntax and semantics, and so forth. This is the major reason why in the end all language learning situations must come to <u>conversation</u>, the only place where all levels of communication are used together to produce and comprehend authentic communications.

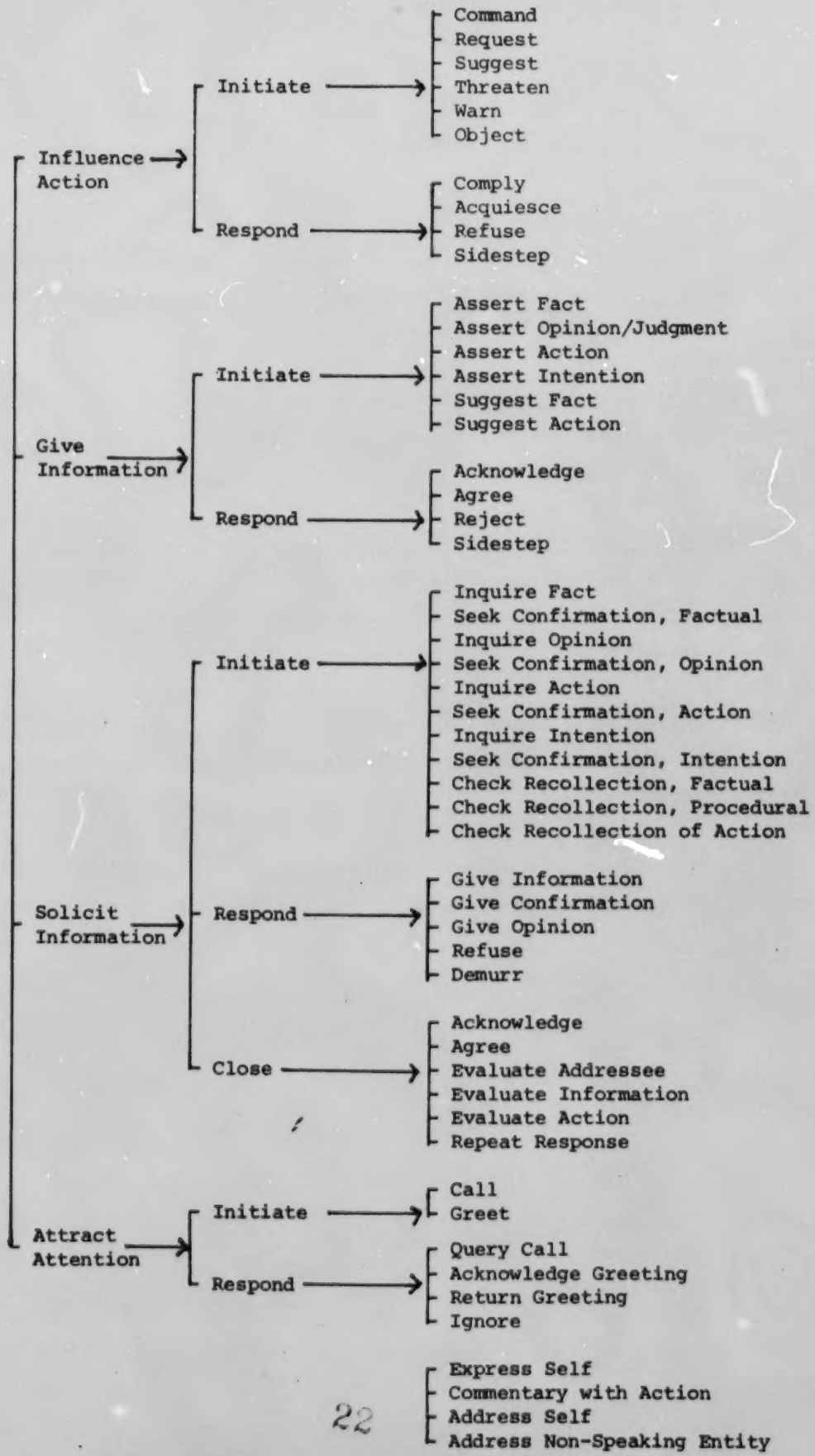

Figure 2 : A system of analysis of language functions (Following Walker, n.d.)

Techniques and materials

In Figures 3 and 4 we have attempted to show examples of current materials available for teaching and developing aspects of language under each of the three approaches to communication development and evaluation, and the blank boxes in those figures are indicative of the areas where considerably more research and materials and methods development need to be done.

It will be noted that in Figures 3 and 4 we draw distinctions among these "aspects" of communication: non-linguistic, para-linguistic, and linguistic.

The non-linguistic aspects of language, as we use the term in this report, refer to such aspects as gesture, stance, body tension, facial expression, (and even dress), and other such "non-vocal" aspects of communication.

Para-linguistic aspects are concerned essentially with the supra-segmental aspects of communication which we have mentioned above in talking about phonology.

Linguistic aspects are carried essentially by the syntax of the communication, and we have also examined these in some detail above.

Level	Aspect	Strategy		
		Conversation	Activity-Based Learning	Specific Learning
Phonological	Non-Linguistic			
	Para-Linguistic			Ling
	Linguistic			Ling
Syntactic	Non-Linguistic			
	Para-Linguistic			
	Linguistic	Conversational strategies deal with all levels of aspects of Communication simultaneously.	TSA Activities Blackwell et al.	Tate, TSA Workbooks, Apple Tree, Fromberg, etc.
Semantic	Non-Linguistic		TSA Activities Blackwell et al.	
	Para-Linguistic		TSA Activities Blackwell et al.	
	Linguistic		TSA Activities Blackwell et al.	Tate, TSA Workbooks
Pragmatic	Non-Linguistic			
	Para-Linguistic			
	Linguistic		TSA Activities	

Figure 3 : Techniques and Materials Available for Communication Competence Development

Level	Aspect	Strategy		
		Conversation	Activity-Based Learning	Specific Learning
Phonological	Non-Linguistic			
	Para-Linguistic	Ling?		Ling
	Linguistic	Ling?		Ling
Syntactic	Non-Linguistic			
	Para-Linguistic			
	Linguistic	LARSP, Tyack & Gottsleben, Lee.		Tate, TSA, GAEL
Semantic	Non-Linguistic			
	Para-Linguistic			
	Linguistic			
Pragmatic	Non-Linguistic			
	Para-Linguistic			
	Linguistic			Miller; Power & Hollingshead

Figure 4 : Techniques Available for Communication Competence Evaluation

Features of Conversational Approaches in Language Programming

As we have noted above, we believe that conversation must be the essential basis of developing language in hearing-impaired children because it is only in conversation that all aspects of language use come together in authentic use settings (c.f. Van Uden, 1977, pp. 177 - 178).

However, there are some important differences between our approach and that of Van Uden and some comparisons are instructive. For example, it is clear that Van Uden distinguishes between two kinds of "conversation" in classrooms (1977, Ch. V). One is the formal conversation of the "language period" which may be "reflected" back to the child and "corrected" in quite formal ways, which is used as a basis for formal grammatical teaching and the seeking out of similar sentences by analogy, and may eventually be written down and corrected by grammatical meta-language (via "reconstructing, constructing and reflecting exercises", p. 233; and "codes", p. 247).

The other is the incidental conversation that surrounds the child in his daily routine in the classroom. It seems to us that it is this latter situation in which the natural features of everyday conversation are to be found.

For example, Van Uden insists on the pupil repeating back the correct version of what he initially said "incorrectly". In normal conversation, it is rare that one member is expected to repeat what he said (or, rather, "should have said") if his partner clearly understood what was meant - and this is what Van Uden seems to be advocating for the "formal language lesson". There are problems which could arise with such an approach : children may easily become frustrated when emphasis is thus shifted from what they mean (i.e., the content of the communication), to the form of what they said (i.e., the way they express their meaning).

Again, the length of the sentence reflected back to the child will usually be more complex and of greater length than his initial utterance. If there is too big a gap in this respect, the child may be reduced to rote imitation of the teacher's sentence, without this having any real impact on his language learning.

Further, the procedure of expecting the child to use standard forms from the beginning runs counter to the theoretical and research evidence that shows that children learn language by a process of more and more closely approximating to the language that surrounds them -- that they universally appear to go through stages in the discovery of the rules for the structure of their language, and only after a number of stages of closer and closer approximation to the target is it finally achieved.

Thus, this aspect of Van Uden's approach is closer to our "specific teaching" level rather than "conversation", and this distinction needs to be clearly borne in mind.

We would also not advocate the use of grammatical metalanguage and diagrammatic analysis as an aid (except perhaps at the highest levels in a study of language itself), as we feel that there is no evidence for the utility of such aids in promoting language growth over and above the conversational and authentic specific teaching and activities which we propose.

With these reservations, we support Van Uden's general "maternal reflective/conversational" approach and believe the following features to be central to any such (C.f. also Van Uden, 1980).

1. Communication is both the foundation and the process of language development, as well as its objective.
2. All features of language use emerge in conversation.
3. Conversation can only occur when participants have the social or personal need to exchange ideas with one another.
4. Conversation must be an active two-way process involving both participants.
5. Participants must accept communication as a two-way process. (This is particularly important in teacher-pupil conversations.)
6. It is useful to make a distinction between conversation and discussion. Conversation is socially oriented, and follows directions determined by the interaction of those conversing; discussion is goal oriented towards ends often predetermined by the aims of those taking part in the discussion.

7. Research shows that conversation is the vehicle for language learning and therefore teachers must take care to provide conditions for the children to so learn language.

Features of a Conversation.

1. The pupil's contribution to conversation must be equally valued with the teacher's.
2. Conversation has certain conventions which must be observed; such as the rules for turn-taking, initiating and changing topics, opening and closing conversations, and so forth. Some of these conventions are non-linguistic and para-linguistic, and include ones at the syntactic, semantic, and pragmatic levels (Kretschmer and Kretschmer, 1978).
3. Both the content and the conduct of conversation should be open to negotiation between the individuals taking part, and stem from ideas that emerge spontaneously during the conversational interaction, and hence conversations cannot be preplanned.
4. Conversations should be conducted within the generally accepted conventions of language use of the community, including colloquial and eliptic language where appropriate.
5. The degree of involvement in the conversation can range from minimal routines through to extended discourse about intimate personal matters.
6. The more intimate the relationships between conversational partners the less the need for linguistic features of communication (i.e., a syntactically abbreviated "intimate dialect" emerges).

Teacher's Role in Conversation.

1. The teacher needs to be a caring person who is sensitive to children's needs for nurturance, acceptance, approval, etc.
2. The teacher needs to be a listener, with his major attention focussed on the meaning of the child's utterances, not their form.
3. The teacher needs to use all appropriate opportunities available for short incidental conversations throughout the day. The teacher should be aware that even in the most formal and "traditional" classroom settings, incidental conversation as a vehicle for language learning is occurring all the time.

4. The teacher needs to ensure that time and conditions are created in which longer spontaneous conversations can take place so as to ensure that pupils are exposed to all the features of language available in conversation.
5. The teacher's task needs to focus on being a participator/facilitator rather than only a director/controller, because this latter role is to a large extent incompatible with that of the principles and features of conversational approaches noted above.

Strategies for Conversational Approaches

The teacher's role as an active participant in conversations should incorporate the following strategies:

1. Listening
2. Facilitating
3. Participating in Dialogue
4. Interpreting
5. Contributing
6. Counselling
7. Referring
8. Nurturing
9. Commentating
10. Questioning
11. Caring
12. Accepting
13. Providing feedback
14. Innovating
15. Advising

The teacher's role will also include instructing, reproving, controlling, warning and interrogating, but these are not really "conversational" in nature.

Techniques for Maximizing Language Learning in Conversational Approaches.

Both theoretical and research evidence of the last fifteen years or so underline the necessity of ample exposure to conversation about immediately meaningful and interesting events with a more mature speaker as being the normal language acquisition process. As will be obvious from what we have said already, we hold the general position that, mutatis mutandis, using such approaches with hearing-impaired children as closely as their disability will allow will optimize their development of adequate communication skills also.

A considerable amount is now known about the structure of conversation between primary care givers and young children (e.g., Snow and Ferguson, 1977; Schiefelbusch, 1978a; Waterson and Snow, 1978) and the application of such principles to hearing-impaired children (Van Uden, 1977; Power, 1975; Cross, Morris, and Neinhuys, 1980; Schiefelbusch, 1978b), as well as such earlier formulations as Groht (1958). There is not space in this report to provide a detailed consideration of these matters, and we would refer the reader to the above sources.

However, a couple of important issues should be mentioned. One is the place of reading and writing in conversational approaches. In this area, we part company somewhat from Van Uden, who advocates the use of reading/writing from a quite early age as a method of stabilizing and providing practice in language forms, as well as being an accurate input method to make up the large arrears that his disability imposes on the hearing-impaired child.

At the early stages, we would feel that reading/writing is not a satisfactory language development approach. The structure, conventions, and cognitive demands of reading are entirely different from those of oral colloquial conversational language, and we believe that the emphasis we have placed in this report on the importance of para-linguistic and non-linguistic features in the acquisition of communication skills preclude the early use of reading/writing for this purpose (Power, 1975).

It is clear that hearing children should have a well-developed oral language upon which to base their reading, and we believe the same to be true of hearing-impaired children. We therefore believe that reading should not be used for early language development, but should be introduced even later than is usual with hearing children, for its ordinary purposes of gaining pleasure and information.

The whole area of reading for hearing-impaired pupils appears to be undergoing a reappraisal, and we are of the opinion that a whole new era of research may change our approaches considerably in this area (Ewoldt, 1977).

The other point that needs to be made is that we believe conversational approaches need not be tied to any particular communication method, and that they certainly are not the preserve of oral-aural-only approaches.

Conversational techniques can be used via any method of communication - pure oral-aural, Cued Speech, Sign Language, fingerspelling, Signed English, and so forth. However, we believe that it is desirable (and possible) to teach all non-multiply handicapped deaf pupils in English, and if some form of manual communication is to be used, we would advocate one that enables the syntax of English to be reproduced on the hands, e.g., Signed English.

In conclusion, Brown's statement in his Introduction to Snow and Ferguson (1977) best sums up the spirit of our approach. Speaking of an answer to the question, "How can a concerned mother facilitate her child's learning of language?", he says:

> My answer, after reading this book, is as follows: 'Believe that your child can understand more than he or she can say, and seek, above all, to communicate. To understand and be understood. To keep your minds fixed on the same target. In doing that, you will, without thinking about it, make 100 or maybe 1000 alterations in your speech and action. Do not try to practice them as such. There is no set of rules of how to talk to a child that can even aporoach what

> you unconsciously know. If you concentrate on communicating, everything else will follow [p. 26; emphasis added].

We believe that the same advice is valid for teachers of hearing-impaired children.

Conclusion

It must be recognised that the apparent informality and lack of structure and teacher control within this type of learning environment is a legitimate and very demanding aspect of the work of a teacher of the hearing-impaired. This kind of work maximally enables the child to become a communicating member of society, as well as being the foundation for all future learning, even of traditional school subjects.

Situations for Developing Conversational Language.

It is not the intention of this document to provide details for teachers about how to program any aspects of the implementation of curriculum. The following situations are provided to develop further thinking along the lines suggested.

1. Early morning routines - the organisational characteristics of hearing-aid checks, unpacking bags, etc. provide the opportunity for pupils to mill around and freely interchange ideas, to initiate and continue conversations both with the teacher and other adults present, or among themselves.
2. Creative activities such as painting, where activity may trigger ideas to talk about, provide many opportunities for conversation.
3. Play, role play, and drama are activities in which the characters creatively converse in settings devised by the children. Note the role fantasy may play here.
4. Informal and unplanned interchanges throughout the day are very good opportunities for conversation.
5. Regular school lunch periods or special occasions such as picnics, classroom parties, etc., may be utilized also.

6. Contrived situations, where, for example, the teacher makes a change in the classroom (e.g., who sits with whom), are also valuable in providing motivation for conversations.
7. Undemanding classroom activities and routines which leave space for conversation should also be regularly made available to pupils.
8. Free-choice learning situations where the pupils relax and conversation flows should be more often used. Teachers and pupils are free to move around and engage in conversation or other activities.

Points to Keep in Mind

1. The structured, sequenced monologues of some "Stand up and say your News" lessons is the very antithesis of conversation. Additionally, the authenticity and adherence of real-life pragmatic conventions of such lessons are doubtful, as they often involve retelling, with the teacher and children already acquainted with the "News".
2. Conversation progresses in complexity from one-to-one, through one-to-two to small-group situations. Note also the continuum of conversing with familiar persons to conversing with a stranger, and the importance and use of different registers and presuppositions in those settings. All of these conditions need to be planned for by the teacher so that pupils are exposed to them.
3. The pragmatics of each conversational situation need to be analysed so that development takes place, i.e., when the teacher joins the group, children need to know that the communication mode should be understandable to the new member and that he is made aware of the preceding interchange.
4. When teachers are conversing in front of children who rely on supplementary modes of communication, the teachers should always use the supplements.
5. Teachers should demonstrate all the social conventions of conversation.

The Role of Pupil-Pupil Conversation

Teachers of the hearing-impaired have often been concerned that conversation among pupils in non-Standard English will "reinforce" their non-Standard usages ("errors"). We believe that modern evidence indicates that this is not the case, because pupils are not "making errors" which will be reinforced by non-correction or even acceptance of peers (or, indeed, of teachers), but are generating language on the basis of a different, but still rule-governed competence, which is affected mainly by the reflective feedback of more mature speakers. We therefore believe that child-child conversation is unlikely to harm the pupils' language development at the phonological and syntactic levels, but that children also do need opportunity to interact with more mature speakers.

We would further say that pupil-pupil talk is important and should be encouraged, because it gives opportunities for practice in using semantic and pragmatic aspects of conversation, even though the phonological and syntactic aspects may still be imperfect.

Features of Activity-Based Learning Approaches for the Development of Communication Competence.

We found that this area of approach to developing hearing-impaired pupils' communication competence is not yet well conceptualized. As a suggestion for what might be done in this area, we re-print in Appendix B some earlier work of Power and Hollingshead (1977; 1978). Considerable development of like materials in this area is needed. It is the activity which determines what we say, and we must continually check that the language used is authentic for the activity (See also Quigley and Power, 1979 - 81).

Principles for Evaluating Materials and Activities for Teaching Communication Competence

1. The selection of materials should reflect school policy as well as the individual needs of pupils.
2. Following acceptance and trialling, staff should make a commitment to materials for a period of time.

3. Adoption or rejection of materials should follow consideration of their theoretical basis (explicit or implicit) irrespective of the claimed basis for the development of the materials.

   For example:

   (a) particular sections of some materials may be adopted despite the overall unsatisfactory nature of the theoretical basis upon which they have been developed, and/or

   (b) despite inappropriate cultural factors or interest levels, some materials may provide principles upon which more suitable materials may be developed. (See following section for examples of currently available materials which fall into these categories.)

4. Materials which purport to be sequential should reflect current knowledge of normal language development.

5. Materials should require the child's active cognitive involvement, and not merely demand mechanical responses to stimuli or imitation of provided stimuli.

6. The material should be perceived by the child to be a valuable part of his language learning experience.

7. Both the relationship and the distinctions between oral and written language codes should be acknowledged and provided for in any materials.

8. Selection and introduction of new materials requires adequate staff involvement and preparation.

9. The necessary level of teacher and pupil involvement should be considered before deciding upon the suitability of materials for any given group.

10. In looking at language materials, these factors need to be considered in detail:

    a. The language used in the materials should reflect the authentic language use of the local community.

    b. The materials should be such that they are culturally appropriate to the norms of the local community.

    c. The level of complexity/difficulty of the materials should be such that they are capable of being handled by the pupils for whom the materials are intended.

d. If the material is sequenced, the sequence should be such that it follows what is known of the normal sequence of language acquisition.

e. The level of difficulty of the materials should be carefully graded so as to ensure that pupils will have a large measure of success in learning. (Adequate assessment is required before appropriate placement can be made in developmental, sequential programmes.)

f. The materials should be such that they follow the principle of mediengerechtheit, i.e., each audio-visual medium used for the presentation of materials should do what it is best suited to do; e.g., the auditory materials should not attempt to do what is usually done in print and vice versa, etc. (See Power's paper below for an extended discussion of this issue.)

g. The material should be sequenced such that it is gradually "decontextualised", moving from the base of the child's experiences to increasing knowledge of the wider world.

h. Cost-effectiveness of the materials and the aesthetics of their design should be taken into account.

Examples of Rejection or Partial Acceptance of Specific Teaching Materials.

Some materials are such that they need to be completely rejected both because of the theoretical model upon which they were constructed, their practical use, and the fact that they do not meet standards derived from what is known about the normal human learning (and particularly language learning) process. Others may be used, even though the theoretical rationale upon which they are based may need to be rejected because it does not meet these principles.

Other materials whose theoretical basis and/or practical implications are generally satisfactory may need to be used selectively because some sections may not be appropriate.

In other cases, materials may well be very acceptable in principle, but inappropriate because they were designed for a different group of children than the hearing-impaired pupils with this report is concerned. Nevertheless, these materials may provide principles upon which other

materials can usefully be developed.

To make our points clearer in this regard, we provide a few examples. As an example of a programme which we consider the theoretical principles of modern language acquisition and teaching indicate to be completely invalid we would cite DISTAR Language programs (Engelmann & Osborn, 1976). From the claims made by the developers this program is based on an associationistic behaviourist conditioning learning theory model. The underlying assumptions appear to be that anything can be taught if it is taught peoperly. The teaching paradigm consists of repetition until specific items are mastered, with the appropriateness and sequencing of items apparently not taken into account. There would appear to be no theoretical basis for the sequencing of learning events within the programme. In the related Reading Programme a great deal of the content is inappropriate -- words selected are infrequent common usage; three-letter words are used early and then transferred to highly inappropriate sentences: "I ran the fan on the sand", and so on; initially, single letters are introduced in isolation and children are expected to respond with a consonant and two phonemes, etc.

The DISTAR Language Program takes as correct only full answers to questions, when these are in fact rarely used in normal discourse, eliptical response being much more frequent, appropriate, and culturally normative.

In sum, the DISTAR Programs are based upon behaviouristic language acquisition principles, which modern evidence indicates to be inadequate and inappropriate, and the materials developed upon this model display many unacceptable features for use with hearing-impaired children.

Some materials do not provide an explicit theoretical statement of the principles upon which they are developed. For instance, many workbooks or exercise books from various kinds of programmes fall into this category (e.g., The Printed Word (Miller, 1976) and Lessons in Syntax (McCarr, 1973). In order to evaluate the usefulness of such materials for hearing-impaired children, careful consideration needs to be given to the types of items which are used, the sequence in which they are

introduced, and the value of these in terms of common usage and cultural normality, as well as whether they follow what is known of the normal developmental process. From such an examination, some of the materials may be used in the way the authors wrote them, or arranged in different sequences, or parts of them may be used and others rejected, or a mixture of all of these decisions may be made.

Some materials do clearly state a set of theoretical principles which are inappropriate or which in fact do not reflect what happens when the materials are used. We believe this to be the case with materials in the Oral Language Programme produced initially by Gloria Tate (1971). It is stated in the manual, for example, that language is a "habit of mind" that is learnt through drill and repetition. As we have noted above, we would reject this as a model of how language is learned. However, when the materials are examined, it is seen that the child is never expected in fact to give a rote response. There is always a contrast, from which the pupil has to discover the underlying "rule". The sequence of structures introduced closely follows what is known of the normal developmental sequence in a way that is remarkable given the state of the research in this area at the time the materials were developed. Thus many teachers find it appropriate to use the Tate materials, even though they would reject the theoretical basis upon which they are said to rest.

As an example of the kind of way in which a theoretical model for developmental materials which is stated but inappropriate needs to be rejected, and some aspects of the actual materials need also to be rejected, we would cite the Apple Tree materials (Caniglia, Cole, Krohn & Rice, 1975). The Apple Tree materials are based upon a transformational-generative grammar theoretical base, and include the teaching of the symbols of this system as a meta-language. There is emphasis also on massive repetition or over-learning of materials essentially out of the context of authentic use. As we have noted above, we would reject these as principles for language learning, but we would feel that despite these fundamental weaknesses, the Apple Tree workbooks and readers can be used as resources for worksheets, although care would still need to be taken that the exercises did not become an "algebra" with the "baking-in" of sets of sentences which are highly culturally inappropriate (non-authentic) and not related to the child's normal language use and needs.

Similarly, many teachers will wish to reject the theoretical model which brings the TSA Syntax Program (Quigley and Power, 1980 - 81) to provide behavioural objectives for its language teaching, but the materials can equally well be used without adherence to the theory or practical implications underlying behavioural objectives.

In the field of Teaching English as a Second Language particularly, many materials seem to be organised in a sequence that is based more upon historical precedent than any theoretical basis of normal development or common use. Learning English in Australia (1973 - 76) would appear to be one such, where no theoretical basis for the development of the materials is stated. However, there is a wide variety of activities used in these materials and they are an excellent resource if used in a selective manner. The order of sequencing, for example, is poor and it cannot be assumed that the materials can be used in the sequence given in the books, as some materials which appear, for example, in Book Five are less difficult than something that appears earlier in Book One, and so forth.

An outstanding example of materials which were designed for use with a population such that they are not directly transferrable to hearing-impaired pupils, are the Challenges materials produced by a team from the University of Lancaster. These materials were designed for the teaching of English to upper high school pupils in Europe, and as such cannot readily be transposed into the teaching of pupils who are hearing-impaired. However, as examples of materials developed upon authentic use of themes and topics at appropriate interest levels, they exemplify in an outstanding manner the principles upon which thematic and topical materials can be developed, and we highly recommend the study of the principles to teachers who wish to develop materials for teaching language to deaf children. They are also outstanding in their use of the concept of mediengerechtheit in that the use of printed, auditory and auditory-visual materials is authentic. For example, simulated radio interviews are used as audiotapes, posters and other printed matter are designed by professionals to reflect authentic language use, and so forth.

Thus the Challenges model is an excellent basis for materials development and one we should try to emulate as taking into account pragmatic and other features of language in use. It is a good example of a language program in which all levels of language use are focussed on simultaneously (Abbs and Sexton, 1978).

In Appendix F we provide a method of evaluating materials for teaching handicapped children distributed by the United States National Center on Educational Media and Materials for the Handicapped. It need not be followed slavishly, but as an aide memoire of the kind of factors which should be taken into account when evaluating the appropriateness of materials, teachers will find it helpful.

Principles for Assessing and Developing Materials for Evaluating Hearing-Impaired Pupils' Communicative Competence

Preamble:

We consider that evaluation of pupils' behaviour is an invasion of their rights to privacy unless it can be demonstrated that the results of the evaluation will provide information of positive value to those concerned with the welfare of the child, or children in general. While it is recognised that there are valid reasons for pupil evaluation for educational and vocational guidance and therapy, it is considered that classroom evaluation techniques are defensible only to the extent that they can be shown to be a contribution to the teacher's pedagogical task, i.e., that they provide diagnostic information on the pupil's status on the particular matter under consideration, such that it will enable the teacher to better plan a sequence of work for the pupil which will enable that pupil to move closer to the target communicative competence which is included in a program designed on the principles we have outlined above.

In keeping with the levels and strategies approach to communicative competence teaching which we have outlined, we believe that monitoring and evaluation should be carried out at all of the phonological, syntactic, semantic, and pragmatic levels. Monitoring of pupil progress at these levels should take place in all the three teaching settings of conversation, activities, and specific teaching.

Evaluation should not be considered only to take the form of a standardized test, it should be realised that there are other approaches to evaluation of communicative competence (such as corpus analysis procedures like LARSP; Crystal, Fletcher & Garman, 1976) which should be utilised routinely by teachers. In general, given the stance we have taken

above, we would believe that when commercially-produced standardised tests are used, they should be criterion-referenced in order to be able to give the teacher useful diagnostic information about the pupil which will enable planning for pupil progress to take place. (However, we do recognise that for placement and research purposes, norm-referenced tests may have a place as part of a larger battery of evaluative materials).

Given the types of teaching strategies for communicative development that we have outlined, we believe that teachers should use a wide variety of evaluation instruments, including standardised tests, teacher-devised tests, and the intuitive responses of the teacher, as well as more or less systematic observations, whether formalised in various available or specially-constructed checklists, and so forth.

We also emphasise strongly that in discussing the evaluation of deaf pupils' communicative competence, we believe that traditional ways of measurement (such as the norm-referenced standardised achievement tests that we have mentioned above) are too focussed upon hearing-impaired children's incompetence, largely because most of them are oriented towards the needs of hearing pupils. Hence any results obtained from such tests must be seen as representing probably only a lower bound of a hearing-impaired child's skills.

Hence we recommend techniques which essentially are criterion-referenced towards competencies needed to cope with language in authentic everyday use. Such techniques are increasingly available at the phonological level (Ling, 1976) and the syntactic level (LARSP, Crystal, Fletcher & Garman, 1976; the TSA, Quigley, Steinkamp, Power & Jones, 1976), but we find a dearth of measures at the semantic and pragmatic levels, a deficiency that

badly needs to be remedied, because we tend not to be aware of the often high level of pragmatic skills of hearing-impaired children, because such skills have not been adequately conceptualised and hence cannot be well monitored. The situational testing approaches outlined by Miller (in press) and Power and Hollingshead (1978; appendix C) may be the beginnings of adequate monitoring processes in the pragmatics area.

Principles

Whatever form of assessment is used, the following principles should be kept in mind:

1. The test should test what it purports to test, i.e., it should be valid.
2. The degree to which the test is capable of indicating directions for planning for teaching further communication competencies should be clear and determinable.
3. Administration of the test:
    1. the required expertise of the test administrator should be assessed.
    2. the time, effectiveness, and environment required for the test administration and evaluation should be determined.
    3. whether the test requires individual or group administration should be ascertained.
    4. the degree of preparation and followup for the teacher should be assessed and in-service training provided where necessary.
4. The mode of instruction and response should be suitable for the test population.

5. The cultural authenticity of the test should be assessed.
6. The test should be so constructed that the test experience need not be a negative one for the child.
7. The test should be age- and stage-appropriate to the child.
8. Where appropriate, the child should be made aware of the purpose of the test.
9. It should be determined whether alterations to a test (for example from the oral to the written mode, or vice versa) will destroy its validity.
10. When used with hearing-impaired pupils, great care must be taken in interpreting the results of tests normed on a hearing population.

We would note also that the techniques given in Appendix F for evaluating materials for teaching handicapped children can readily be adapted to evaluate material for assessing them and monitoring their progress.

Research Needs in the Area of Curriculum for Hearing-Impaired Pupils

1. Basic Research:

1. The real and ascribed curriculum in communication competence teaching with hearing-impaired children requires examination. Studies of the extent to which teachers actually follow what they have laid down in their written curricula are an urgent need in evaluating the amount of exposure to language in appropriate environments that hearing-impaired pupils actually get.

   The studies of David Berliner and the international classroom Environment Study: Teaching for Learning, conducted in Australia by ACER, would provide possible models for such work.

2. Studies of methods of describing and collecting authentic communication data of the daily round are urgently required: Such studies should be concerned with communication at the phonological, syntactic, semantic, and (particularly) the pragmatic levels. Consideration would also need to be made of all three of linguistic, para-linguistic and non-linguistic factors in communication.

3. Studies also need to be made of the "communicative demands" of the environment of the daily round of adult deaf people at different levels of competency to assist in determining the kinds of needs which they have, so that curricula may be developed to ensure that these needs are being met.

4. A study needs to be made of the reaction of teachers of the deaf, deaf people, and the parents of deaf students to the principles evolved and reported in this study. A study using the Delphi technique could well provide useful information about the priorities which these groups accord to various aspects of communication curriculum implementation.

Applied Curriculum Research:

1. There is a need for a major project to develop a "Model Communication Curriculum Statement" which, while developed at a central project level, would not be prescriptive, but would provide schools with guidelines and materials from which they may select and/or adapt to meet their particular local needs. Such a Communication Curriculum should include the matter that we have detailed elsewhere under the heading "Contents of a Communication Curriculum for Hearing-Impaired Pupils".

2. There is a considerable need for establishment of a major project to develop resources and materials for schools and services for the hearing-impaired at all levels we have mentioned above: Phonological, syntactic, semantic, and (particularly) pragmatic; and under all aspects of communication; linguistic, para-linguistic and non-linguistic.

3. There is a need for continued extensive investigation of the content and techniques of teaching using conversational and activity-based approaches.

4. Included in the activities of any such project/s should be a series of papers about the implementation and use of the principles of particular materials and resources for teaching communication competence to hearing-impaired pupils at the level of the needs of the classroom practitioner. (Consideration also needs to be given to the place of "English for Special Purposes" approaches in language curricula for hearing-impaired pupils.)

5. There is a need for the development of evaluation and monitoring techniques concerning the communicative competencies of hearing-impaired children at all levels, but particularly at the semantic and pragmatic levels, and under the conversational and activity-based approaches.

Dissemination

While we strongly believe that there is an urgent need for research as outlined above, and that implementation of these research recommendations would result in a considerable step forward in the teaching of communicative competence to hearing-impaired pupils, at the same time we believe that there is a considerable amount of information on principles, materials and resources, for both teaching and evaluation already available, and we would strongly recommend that a Clearing House for exchange and dissemination of such information should be set up at a national level.

In-Service Needs of Teachers

We find general agreement that there is a very great need for continued intensive in-service education for practising teachers in all areas and aspects of curriculum development, implementation and evaluation, and we would urge all schools to take advantage of Schools Commission Teacher Development Committee funds and any other sources available to enable their own continued development in these fields.

We would expect that if a central curriculum development project in these areas is developed, that the expertise of the members of the central team and its local workers should be heavily utilised in these developments.

We would also strongly recommend the continuation of an annual Workshop of the nature of the one which we report in this document, and would suggest that the topic for the next one in 1981 be that of detailed examination of approaches to classroom communication competencies teaching at the activity and conversational level.

Generalisability of the Model of Communication Competence Teaching Used In This Report.

While some of the matters we have discussed, and some of the principles we have outlined in this report, are peculiar to the problems faced in the education of hearing-impaired children in communicative competencies, we believe that most of them are broadly generalizable to all language-delayed pupils, particularly those who are mildly to moderately intellectually handicapped (with the probable only exception of those children whose language learning problems appear to stem from central neurological damage).

We therefore believe and we recommend that the contents of this report be made available to special educators in areas other than hearing impairment, and that their advice and opinions be sought concerning the generalizability of the model to other disabilities.

ON THE PROVISION OF AUTHENTIC LANGUAGE LEARNING ENVIRONMENTS FOR HEARING-IMPAIRED PUPILS*

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In very general terms any opportunity for learning is followed by one of two outcomes as far as the recall of the material is concerned: either over time the material is gradually forgotten or it is not. While this may seem a trivial distinction, it becomes important if it can be demonstrated that differences in recall are preceded by systematic differences in the circumstances under which the learning took place. I believe such differences in the learning circumstances[1] preceding different recall outcomes do exist and that examination of these differences throws light on the conditions necessary for designing better learning experiences (curriculum and teaching methods and materials) for hearing-impaired children.

In his Reflections on Language Chomsky (1976) points out that the learning of language is significantly different in nature from the learning of many other aspects of human knowledge. He has likened the learning of

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* I am grateful to Anne Hollingshead and to several colleagues at Mt. Gravatt CAE for comments on an earlier draft of this paper, and to Anne Hollingshead for supplying several of the examples used. Originally delivered at the International Congress on Education of the Deaf, Hamburg, August, 1980.

language to the learning of "common sense" and compared it with what he sees to be a very different matter, the learning and understanding of such "subject matter" school subjects as physics and chemistry. As he points out

> there are striking differences between these systems. Knowledge of physics is conscious knowledge. The physicist can expound and articulate it and convey it to others. In contrast, the other two systems [i.e., common sense and grammar] are quite unconscious for the most part and beyond the bounds of introspective report. Furthermore, knowledge of physics is qualitatively distinct from the other two cognitive structures in the manner of its acquisition and development. Grammar and common sense are acquired by virtually everyone, effortlessly, under minimal[2] conditions of interaction, exposure, and care. There need be no explicit teaching or training, and when the latter does take place, it has only marginal affects on the final state achieved. To a very good first approximation, individuals are indistinquishable (apart from gross deficits and abnormalities) in their ability to acquire grammar and common sense. Individuals of a given community each acquire a cognitive structure that is rich and comprehensive and essentially the same as the systems acquired by others. Knowledge of physics, on the other hand, is acquired selectively and often painfully, through generations of labor and careful experiment, with the intervention of individual genius and generally through careful instruction. It is not quickly and uniformly attained as a steady state, but is transmitted and modified continually on the basis of controlled enquiry and an explicit record that provides the basis for the next stage of construction [p. 144].

I believe this provides a valuable insight into the reasons why traditional approaches to teaching language to hearing-impaired pupils have often not been as successful as we would wish. Because of the sort of pedagogical custom, practice and theoretical orientation that most of us bring with us from our training and experience, we, as teachers, have tended to treat language as being a "subject" just like any other subject in the school curriculum, and hence one which can be taught in the same way as other school subjects. It is now becoming clearer that this is not the case. As Chomsky states, language is qualitatively different, both in its final knowledge state, and its method of acquisition, from other school subjects such as chemistry, physics, and so forth. I therefore wish to argue that it is necessary for us to revise our view of what it means to know and use language and the methods whereby that knowledge is acquired.

It therefore becomes necessary to discover a pedagogy for fostering the acquisition of competence in "functional" subjects such as language because it is crucial for the development of hearing-impaired pupils that they not "forget" what they learn in this field.

I believe that insights into the nature of such a pedagogy can be derived from examination of the notion of <u>developmental appropriateness</u>. Developmental appropriateness in this context has two aspects:

(a) <u>ecological validity</u> - which essentially means that both curriculum content and the methods used to teach that content should be "age x situation" appropriate. For <u>content</u> this means that what is being taught should accord with the "real-world use" of the phenomena under consideration at a level commensurate with the social and cognitive development of the pupil. For <u>method</u> this means

that the materials and techniques used should be appropriate to the level of self-awareness of the learner and learning should take place in a context of authentic use of the phenomena under consideration;

(b) structural validity - which is concerned mainly with curriculum content, and means that theoretical and empirical evidence concerning the normal (and in the case of hearing-impaired children, the abnormal) course of development must be taken into account in determining the content of the curriculum.

These principles are probably valid for all curriculum areas,including "content subjects" like science, mathematics and social studies, but in special education settings they are crucial for the acquisition of competence in "functional" subjects like language whose retention is central to the personal/social development of the individual.

To this developmental appropriateness must be added an accord with current understanding of the principles of learning. Which theoretical stance one adopts in this area is certainly controversial, but I believe that a broadly Piagetian-oriented approach to the nature of learning accords best with the present state of our knowledge.

A few examples of "developmental appropriateness" may make my points clearer:

As far as ecological validity is concerned, the validity needs, of course, to be in terms of the learner's view of what knowledge is of most

worth in this situation, and not one arbitrarily imposed upon him by the organisers of his learning. Thus, although teachers must have a view of what is desirable for a pupil to learn, they must also be alert and sensitive to feedback from pupil reactions which indicate whether he is responsive to the teaching or not, for if he is not, then he is not likely to internalize his learning, and the loss of correct recall that I spoke of above will be the outcome.

As Dewey has pointed out (1904, quoted by Scheffler; in Cazden, 1972) this is a complex and difficult matter:

> it is important to stress the subtlety and delicacy of the teacher's interchange with the student. A crude demand for effectiveness easily translates itself into a disastrous emphasis on externals simply because they are easier to get hold of than the central phenomena of insight and the growth of understanding. In an important essay of 1904, John Dewey distinguished between the inner and outer attention of children, the inner attention involving the "first-hand and personal play of mental powers", and the external "manifested in certain conventional postures and physical attitudes rather than in the movement of thought". Children, he noted, "acquire great dexterity in exhibiting in conventional and expected ways the form of attention to school work". The "supreme mark and criterion of a teacher", according to Dewey, is the ability to by-pass externals and to "keep track of (the child's) mental play, to recognize the signs of its presence or absence, to know how it is

> initiated and maintained, how to test it by results attained, and to test apparent results by it". The teacher "plunged prematurely into the pressing and practical problem of keeping order in the school room," Dewey warned, is almost of necessity "to make supreme the matter of external attention". Without the reflective and free opportunity to develop his theoretical conceptions and his psychological insight, he is likely to "acquire his technique in relation to the outward rather than the inner mode of attention". ... The effective classroom performance surely needs to be judged in relation to the subtle engagement of this inner mode, difficult as it may be to do so [p. 137].

Thus the teacher must be constantly alert to ensure that what he is teaching accords with (or perhaps is just a little bit ahead of) "Where the learner is", so that he may optimally benefit from it.

The determination of the "age x situation" interaction is also very complex. It is not just a matter of adjusting techniques and materials to accord with the capacity and dignity of the learner so that his sense of self-worth as well as his knowledge is enhanced. The parameters of this notion are not well explored, but it is certainly not just a matter of chronological age, as was exemplified by the considerable deterioration of the language and behavior of a twenty-year-old severely intellectually handicapped young man in a residential setting when he was transferred to an adult ward because he was of that age. In fact he looked and acted like an eight-year-old, liked being with a children's group, and was making greater progress there than he did in what might a priori have been

considered to be a more enhancing setting. Thus in some cases movement towards "age - appropriate" settings may have to be a very long - term goal underlying the educational program.

Similarly, the situation also needs careful analysis. For many severely handicapped individuals, special settings may bring about idiosyncratic and "deviant" ways of behaving which are nevertheless facilitative and useful adjustments to life experiences and demands. The controversy over the extent to which deaf children should be exposed to or even inducted into the "deaf culture" provides an example of this: where for those who support a purely oral approach such induction would be retrograde and stifling; but in the recent literature, it is being increasingly argued that membership of the deaf culture is enhancing for both the personal/social and intellectual development of many deaf individuals, even though culturally distinct ("deviant") from the point of view of the majority hearing culture (Freeman and Boese (in press); Furth, 1973). Similarly, some educators of the deaf have expressed the view that not to integrate partially deaf pupils fully into regular schools until Grade 3 or so, but to keep them in "deviant" special school or class may enhance their eventual integration, because of their better social interaction and academic skills, and self-confidence (Bailey and Hart, 1980).

As far as curriculum content is concerned, it is important that the content accords with "real-world use", probably the least well understood and hence least attended - to aspect of ecological validity for curriculum development. Sociologists have pointed out that much of our awareness of our actual language use in real settings is "pre-reflective".

We believe we know what to do when, for example, we greet others or take leave of them, but we have not in fact objectively observed ourselves or others in actual greeting and leave-taking situations. Hence we tend to continue to teach hearing-impaired children what we consider to be the norm in these areas, but it may not accord with what actually occurs in real-life settings. This may account (in part) in the language use area for the often-noted "stiltedness" or "oddness" of the language of deaf adolescents whom we may have taught only stereotypic, formal and even archaic modes of greeting and leave-taking which are rarely used outside classrooms.

Thus, I have seen hearing-impaired children taught to say, "Good morning, Miss Smith. How are you today?" or some such formulation in the belief that this is how people greet one another, when in fact observation indicates that this formula is rarely used, and when it is, may be met with suspicion as an attempt at levity or sarcasm.

Problems in this area are compounded by the fact that such formulas are often taught out of a context of their authentic use, so that pupils may have a particular greeting rote-learned, but use it in settings or ways outside the classroom that are seen as odd, or in fact never use it outside the classroom unless specially prompted because generalizability of such formulas to other social settings is typically very low.

In the first case one gets such odd happenings as those reported by Rees (1978) where a mentally retarded girl who had received "psycholinguistic" training was handed a cup, and responded:

It's a cup, it's pink, it's plastic, you drink from it, or the teenage

blind girl, who when introduced to a new teacher greeted her:

> *How are you, Miss Ferguson, how are you, are you fine,*
> *oh dear God, I hope you're fine* [*p. 193*].

- good examples of what van Uden (1977) has called "baked sentences" - syntactic forms set in the pupil's knowledge, but without any context of authentic use.

Generalizability of language use may also be low because the skills we have taught have not been in real-life settings and the "transfer distance" is just too great for pupils to be able to make the jump from classroom or clinic to real life (Hart and Rogers - Warren, 1978).

As far as the structure of curriculum content is concerned, care must be taken to ensure that it follows what is known of the normal process of development. For example, a considerable amount is now known about the form and sequence of acquisition of complex syntactic structures which need to be taken into account in curriculum making (e.g., Bowerman's (1978) survey of semantic and syntactic development, and Klima and Bellugi-Klima's (1966) demonstration of what can be done for particular syntactic structures, in that case for negation and question formation; see also Quigley, Wilbur, Power, Montanelli and Steinkamp, 1976, for the development of syntactic structures in hearing-impaired children).

The case of negation is particularly instructive in that it can be readily shown that children go through various non-verbal ways of negating the world (turning away, pushing away, etc.) often accompanied by vocalizations, before coming to syntactic oral expression of negation, within which a number of stages may be found. Typically, children move from just

putting a negative element before a sentence "Nucleus" (No me home now = I'm not going home now), to putting that element within the sentence (Me no home now), until with the emergence of the auxiliary verb system, they can achieve something close to the final adult form. Thus it seems clear that children move through stages of development of syntax, propelled by a process that may be broadly characterised as one of "seizing" the child's actions and utterances to give "reflective feedback" (Van Uden, 1977; Brown, 1977), and need to actively construct these syntactic representations of their thought from exposure to a very large amount of language (primarily maternal) in meaningful settings. Thus those programs which advocate direct teaching of correct forms without taking into account a child's current developmental status may be in danger of teaching splinter skills ("baked sentences") which the child cannot use in real life because he cannot relate them to his previous understanding of how these particular concepts should be coded, nor to the settings in which they should be used.

Where method is concerned, two aspects need to be analysed: materials and techniques.

For materials this means provision, for example, of age- and interest-appropriate reading materials for teenagers and adults with reading problems, who now need not be embarrassed by being given inappropriate materials because of the recent proliferation of materials suitable to their needs and interests. Much more still needs to be done in this way as far as oral language teaching materials are concerned although I feel that our recent efforts in this regard, based upon the principles evolved by Jakobovits and Gordon (1974), and the Challenges TEFL materials (Abbs and Sexton, 1978) are a move in this direction (Power and Hollingshead, 1977; 1978; 1979; 1980), in attempting to sequence materials for language learning so that they are socially interesting and cognitively challenging to hearing-impaired language learners of various ages. Similarly, the forthcoming syntactically-graded reading

series for hearing-impaired children being developed by Quigley and King (in press) will be of great help for hearing-impaired readers.

The other way in which materials must be ecologically valid is in terms of what the University of Lancaster group (which produced the Challenges materials mentioned above) term mediengerechtheit: each medium used for teaching must be faithful (authentic) to its own style; for example, audiotape should not attempt to do exercises better done in writing, written materials should reflect real-world newspaper and magazine styles, and so forth. The implications of all this for special education teaching seem to me again to be virtually unexplored, and much more work needs to be done on the impact of various media upon the learning of hearing-impaired pupils.

As far as techniques are concerned, I have argued above that that kind of learning which is not followed by forgetting needs a pedagogy different from that we traditionally use for school content subjects, and I believe that Jakobovits and Gordon's (1974) notion of learning in "authentic transactional environments" provides a key to such a pedagogy, enabling us to bring together the strands of age x situation appropriateness, content and structural validity, and authentic techniques and materials that I have noted above, into one ecologically valid package.

Essentially, what Jakobovits and Gordon are advocating is that classroom experiences[3] should be organised in such a way that pupils and their mentors[4] interact in meaningful and necessary exchanges in (on the pupil side) growing approximations to the target language skill. Such meaningful interactive input will, over a period, provide the child with linguistic and social behavioural data that will enable him to construct for himself more nearly correct representations of the target skill we wish him to acquire.

Some quotes from Jakobovits and Gordon (1974) will give the flavour of their approach.

> The authentic ... teacher performs in the classroom the authentic use of the target code, thereby providing the relevant learning opportunity for practising the target skills. "What is your sister's name?" is an improvement over "What is your name?" [i.e., I already know your name, and you know that I know it, so to ask you is to lack real involvement and authenticity.] .... The authentic ... teacher avoids emphasis on the cognitive aspects of study in favour of its experiential aspects. Thus, he minimizes linguistic explanations ... and linguistic practice exercises and assignments. Instead, he finds ways of increasing the student's performative practice of authentic language use. He does this in a number of ways. By talking to each student in a personally relevant way ... By splitting the class into dyads or triads so that each student has the opportunity to perform. By enlisting the help of student aides, parents and para-professionals. By making use of the mass media and audio-visual aids as stimulants for subsequent authentic interactions (discussions, projects, games) [pp. 260 - 261].

> The teacher must be a director and a performer, continually enacting the content of his verbalized instructions ..., most of which is of course incomprehensible to the beginner pupil. The latter will understand the type of

performance known not so much from the teacher's verbalizations ... , but because he will come to recognize what the performance stands for, i.e., its transactional significance, from the enactment of the whole scene. So, while the pupils are busy ... making transactional fun, the teacher bombards them with a perpetual stream of relevant verbalizations in the target language ... [p. 51].

We cannot over-emphasize the fact that the teacher's attitude towards this technique of teaching ... must be different from the usual one in one particular essential feature. She must not attempt to teach ... directly. This means that she may not be seen to display an interest in the "correct" use of [a certain skill] ..., as would be the case were she to correct the pupil's [performance] in the usual manner. Instead, the claim she must continue to maintain is that she is interested in transactional performance, not in "correct" communication, pronunciation, or syntax (or social behaviour) [p. 51 - 52, emphasis added]

The necessary and sufficient condition for authentic ... practice is that the pupil enact himself ... . By enacting himself in ... exchanges, he is in fact practising the target skills he will come to be using should the training be successful [p. 72].

I believe that this kind of transactional authenticity allied with the detailed examination of development to determine curriculum content and structure, and utilization of the mediengerechtheit concept of the thematic Challenges materials and the gamesing and simulation approach of Power and Hollingshead (see also Quigley and Power, 1979) will provide a firm foundation for language curriculum development for hearing-impaired pupils. It is now incumbent upon us to do the research and development work to turn this promise into reality.

The central importance of our doing so is underlined again by a comment of John Dewey (1916) about the centrality of communication to human development.

> Society not only continues to exist ... by communication, but it may fairly be said to exist ... in communication. There is more than a verbal tie between the words common, community, and communication. Men live in a community in virtue of the things they have in common; and communication is the way in which they come to possess things in common [p. 4 of 1966 ed.].

If we are to fulfil our aims of providing a place in a community for our hearing-impaired pupils, then it is necessary indeed that we provide them with competence in communication, and I believe we now have the theoretical tools to considerably improve our performance in this regard.

NOTES

1. "Learning circumstances" must include teacher and setting, as well as pupil, variables.

2. One would now, of course, argue that the conditions of "interaction, exposure and care" under which language and common sense are learned are far from "minimal" ones. Research of the last decade indicates quite clearly that a lot of very intense, albeit unconscious, effort is put into learning language, both by the child and by his mentors. (Snow and Ferguson, 1977; Schiefelbusch, 1978).

3. And, I would add, many out-of-class experiences; classrooms are often not the best places to learn the kinds of language skills we are discussing. They are mostly better learned in the real world environment outside the classroom.

4. Who need not always be professional "teachers"; most more mature individuals than the learners have much to offer in this kind of pegagogy, parents, grandparents, older pupils, peers (Strom, 1980) and other recruits can be well used for their general experience and expert knowledge to widen the range of interactive experiences of hearing-impaired pupils - thus avoiding the growth of a restrictive "intimate dialect" and "deviant" behaviours in the school or class for the hearing-impaired.

APPROACHES TO THE TEACHING OF LANGUAGE TO HEARING-IMPAIRED PUPILS

by

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From 1977 to 1979 I worked at Burwood State College with Dr. Des Power on the development of language materials that would team up with the Test of Syntactic Ability (Quigley, Steinkamp, Power and Jones, 1976). This work started by looking particularly at syntax. Thus, the task was divided into working with syntactic structures such as negation, conjunction, verb processes, etc., following the format of the test materials. From this quite specific focus on one aspect of language I was then transferred to a large school where I was asked to look at the language curriculum across the school. From the experience of working in a fairly specific language area to one of looking at language across the curriculum, and further from looking at a centralized development of language materials, I was then required to look at curriculum as a school-based task, i.e., with the needs of a particular school population in mind. Thus, the comments that I want to make are derived from experience in working in these two quite different settings.

In any setting the development of a language curriculum is an immensely complex task. The developer needs extensive knowledge of the complexity of language as a system and the process of language acquisition (in both the normal child and in the hearing-impaired child) before he can decide what aspects (if any) of language should be taught, and then what method and materials should be applied in teaching them. The problem becomes even more complex when the relationship between language curriculum and curriculum more

generally is taken into account. A curriculum should not merely be a prescription; a document in which there is an outline of what is required to be covered in a particular time or at a particular stage. A curriculum can include prescriptive documents, but must also include descriptive materials; guidelines or program outlines, and it also must involve the content of the entire school day (planned or unplanned, recorded or not recorded). Indeed the notion of the "hidden curriculum", referring to those aspects of the school day that are rarely heeded in any analysis of what occurs in school, also needs to be included in curriculum. Fundamentally curriculum is a process, and not a static document. Hence curriculum is inevitable. The most significant aspects of curriculum are inevitably school-based. Even though documents produced by centralized agencies may be important as guides for schools, the adaptation of these to the needs of particular children and to particular teaching styles demands a school-based consideration of their usefulness for particular purposes. Curriculum involves a continuum from broad philosophical principles of policies to actual school programs, either flowing horizontally across a particular stage or level, or vertically sequencing a particular content area, or both; to class programs developed from school programs to meet particular needs of teacher and group; through to the activities and materials that make up the school day. All of this needs to be captured in some form in a school curriculum.

At the policy level there is a need to look at the division of content areas in the curriculum. First, there are the traditional academic subject areas that have their foundation in the British school system; primarily the basic skill subjects, numeracy and literacy,but also with increasing specialization in humanities and sciences. The gradual shift of emphasis in response to the cry for relevance has introduced new content areas (the new curriculum) into the curriculum, for example in the recent Curriculum

Development Centre document on "Core Curriculum", and finally the hidden curriculum. The process of curriculum development is obviously crucial in schools; and a major stumbling block is the documentation of it. This, I think, is the primary purpose of this working group, to bring together in a coherent form some outlines of language curriculum for hearing-impaired children. We were fortunate to have been given the time and the opportunity to develop useful curriculum materials. Classroom teachers very rarely are given these conditions; nor indeed do they often have the necessary time to even reflect on what they are doing. On the other hand, those most often involved in the documentation of curriculum materials do not have the opportunity to be involved at the school or classroom level at the same time in order to capture the effects of the process. Hence we have too many static documents written to meet the needs of poorly defined groups of children.

At the school level it is often difficult to develop successful organizational strategies so that both classroom teachers and support staff can work together as a team. It has been suggested that classroom teachers very often do not have the time or the skill to undertake such a task, but this overlooks the whole nature of curriculum. Curriculum is what occurs, which is not necessarily what is written down in any curriculum statement. Hence teachers are inevitably involved in curriculum development: the question to ask is the <u>extent</u> to which they are to be involved in the recording of its development. There are many advantages to such involvement, not least of which is the capturing of all the excellent teaching that occurs. This has an intrisic value but it also has a general value. The sharing of ideas that occurs in the recording of curriculum in workshop settings has its own built-in rewards, both in terms of each contributor clarifying his ideas and in the interchange that takes place as the notions are clarified. The poor

recording of curriculum in schools is partly due to the fact that comprehensive recording may take as long as the actual accomplishment of an activity.

Although collation of curriculum is a major problem, so is implementation. If school programs are to be developed sequentially and to be a general school committment, then it is important that all staff are involved in various aspects of the on-going development of such programs.

There are at least four stages involved in the curriculum development process. First the adoption of a new innovation. This may require the rejection of an existing aspect of curriculum, or it may be an addition which involves variation of time constraints. The rejection of another aspect may leave a time gap that may necessitate a variation of time as well. In many cases there is a continual process of amendment rather that an outright rejection or a sudden addition. Amendments may involve contraction or expansion. Hence these four processes: adoption, rejection, amendment and addition often occur simultaneously and interdependently. The emphasis is on process: curriculum is in a continuous state of flux. Curriculum is part of what all teachers do in the classroom, and it is also part of what needs to be done at the program and policy level, otherwise the documentation of these levels fails to match what is happening in classes. Documentation needs to be in a form that makes the programs and lessons and activities replicable. This is the essence of capturing curriculum in the permanent form of the printed word. We must stop reinventing the wheel.

In the process of coping with innovation we must also beware of throwing the baby out with the bath water. Keeping up with the latest does not

require continual upheaval in school programs: indeed too great a degree of change brings its own inevitable toll on teacher morale. Innovation needs to be based on sound theoretical and practical underpinnings. Firm commitment is required to resist the pressure for innovation at any price. Many of the papers that were distributed as prereading for this seminar illustrate insights available at the theoretical level and introduce the kind of information necessary and relevant to the making of judgements in regard to major change in language curriculum. I cannot emphasize too strongly that teacher intuitions or judgements from experience in the field should be valued. It is particularly rewarding now that so many of the approaches used in programs are gaining strong theoretical bases from recent research; indeed that the gap between research and practice in many areas seems to be closing. Much more of what is reported in academic works is relevant, not just to academics but to practitioners in the field.

Of course this is not always the case. There are occasions when practices adhered to in schools come into question as a result of theoretical perspectives that clarify the process of acquisition of competence in particular areas, for instance in the areas of reading and spelling. Consideration of these factors may lead to amendments or new programs.

Consideration of the disability of hearing impairment may also lead us to reject some procedures used in regular schools. Two particular examples of rejection of regular school procedures at the word level may be instructive. This is in regard to early literacy programs which use CVC lists: pig, big, dig, dog, etc., and in the area of reading: sight vocabulary lists of basic words such as the Dolch List which includes function words which are predominantly a problem at the syntactic level in contrast to content words which are much more likely to be concrete terms with fairly specific referents. The lists of CVC words are part of an auditory approach

to the teaching of literacy. The Dolch Lists are part of a word attack approach based on word frequency. Unfortunately hearing-impaired children need to compensate for impaired audition. Hence, visual approaches, particularly in the early stages,seem to be preferable for them, e.g., whole-word approaches and morphological approaches. In the case of basic word lists: if we teach children to respond to the hundred words that make up 50% of written discourse, there is no reason to suppose that this will ensure comprehension levels are adequate, unless the child's syntactic competence is sufficiently advanced as well.

For reasons such as these curriculum documents need to not merely omit methods that are inappropriate for certain children, but as well should tackle the problems involved in the use of such methods to ensure that the rationale behind the omission is clear to all. In the case cited above this would involve cautionary comments about the use of commonly-used word lists with hearing-impaired children, in the way that they are used in regular school programs. Of course these lists are useful with some children, and indeed with many children at a much later stage of development. Many of the problems that arise in the use of materials with hearing-impaired children are also problems for other children, for example second language learners. Some methods commonly in use in regular schools are, however, being claimed to be inappropriate for all children for similar reasons to some that apply to hearing-impaired children. This could be said to be the case with the CVC lists in Preparatory and Grade 1 programs.

Recently the Victorian Education Department Curriculum and Research Branch has distributed a booklet called "Primary Curriculum" to all primary schools. This document helps school staffs structure the curriculum process.

It divides the curriculum into four areas: policy or philosophy; school program; class program; and materials and activities. It is suggested that organization processes need to be evolved which enable the whole school staff to be involved in policy and in school program development whereas the class program and activities and materials would be the prerogative of class teachers, while keeping in mind the guidelines provided by policy and school programs.

One way of organizing this process is to set up a working party to write a draft of policy in a particular curriculum area. Usually this results in areas of consensus and areas of conflict. Following this, all staff can be involved in the collation of activities that have actually been used successfully with their particular groups during the year. These can then be categorized into different types and levels of activities. Such activities will provide guidelines as to the variety of approaches to the particular curriculum area. For instance, in the area of reading, the extent to which language experience approaches are used; whether whole word or phonic approaches or a sentence method predominates; what use is to be made of reading schemes and other commercially produced materials; the types of teacher materials that are used; and so on, are all relevant to such a categorisation.

Although many teachers may not have a great deal recorded at the class program level, the types of activities and materials that they use indicate a great deal about the type of program that they had developed. The activities and materials so gathered form the basis for detailing class programs. In a particular case that I have been involved in, it was interesting to see the extent to which an in-service education program contributed to the types of activities that were being used. As this program contained many theoretical sessions, it afforded the opportunity for teachers to draw on new ideas which were being brought back to the teaching situation

in the form of program change and activity development and trialling.

CONSTRAINTS ON CURRICULUM

There are only so many hours in a day! The school program of hearing-impaired children covers many of the areas that are found in regular schools. However, in most cases, there are additional areas that also require time. We have particular programs that are designed for hearing-impaired children in language, speech, auditory training, etc. There are basic skills in numeracy and literacy that rate high priority in most schools. Then there are additional content areas that may be organized in a variety of ways. In some schools the policy allows for flexibility at this level. Some teachers may adopt an integrated studies program, developing themes and topics to cover many of the traditional subject areas and many of the "new core" areas. Others may prefer to follow the traditional subject areas with set times allotted to each subject per week. In some schools the organization of the program may be prescribed. This may be a difficulty if there are a variety of teaching styles. It may also be a difficulty with calls for relevance and change to meet a changing society. The "new core" in the CDC Core Curriculum Statement reflects this view.

So we have constraints of time and content, we also have constraints of individual needs; both teachers and pupils. Certain pupils need certain types of programs and certain teachers bring a particular style that influences the manner in which they most ably accomplish their work. Generally in our schools there has been a great deal of freedom for teachers to choose. There has been a great deal of flexibility because of the acknowledgement of different teaching styles and differing pupil needs. Perhaps given this degree of freedom it is surprising that there has not been more difference between classes in the programs that have been provided. If this

flexibility is to be continued and even different types of programming to be encouraged then the curriculum document would need to set out some of these alternatives.

CURRICULUM MODELS:

I would like to take as a starting point the model developed by CDC and then discuss some changes to this model to meet the need for an emphasis on communication and language development. It must be seen that the role of language and communication is an ambiguous one. In schools for the hearing-impaired particularly these areas are the means by which learning occurs, but also the content of much of what is learned. A satisfactory curriculum model will need to reflect this duality. Much of this learning occurs spontaneously as it does with hearing children. However, hearing-impaired children require programs to be provided with quite specific contexts in which quite specific aspects of communication can be acquired.

LANGUAGE DEFINED:

In the present context language is not used in the broader sense to mean body language (here referred to as non-linguistic) or as the language of non-human subjects (whether apes or bees) but to refer to a standard language of a human group: in this instance speakers of English. It is assumed that despite the choice that deaf children often make to communicate in a code among themselves that is not Standard English, nevertheless the Standard English form is required in our society if there is not to be a severe restriction on life chances, particularly in post-school years.

In any school curriculum, therefore, it is necessary to have a policy about the use of non-standard language or languages other than English, just as it is necessary to have a policy in regard to the use of manual supplements, and/or Sign Language.

EVERYDAY SOCIAL DISCOURSE:

Typically it is through language, thought and communication that social discourse is accomplished. In most interactions aspects of each are present. Of course it is quite possible to communicate without using language, to use language without communicating, or to communicate without thinking; but in general these three factors are present. When considering communication, we need to consider the non-linguistic as well as linguistic phenomena. Non-linguistic communications are predominantly visual, just as linguistic items are predominantly auditory in nature. Bridging linguistic and non-linguistic aspects of communication are paralinguistic features (or suprasegmental features) - tone of voice, in lay terms: "It's not what you said but the way that you said it!" Each is crucial for full communication competence. Hearing-impaired children are often highly competent in the comprehension of non-linguistic cues to communication. Very often this competence is not recognized by their teachers. Perhaps this is because the delay in linguistic and paralinguistic aspects of communication masks skills in this area. Perhaps the fact that we have such inexplicit terms to describe the various fundamental features of non-linguistic communication is important. In contrast, the study of linguistics is an advanced one, with a language of its own categorizing the various elements that make up the system. Because we do not have the language to describe the major features of the non-linguistic system it is not so easily recorded and therefore not so easily studied. In every-day situations we often find it very difficult

to describe the elements of the situation that lead us to understand certain features of messages conveyed non-linguistically. However, we follow our beliefs about such matters and are not often wrong. In intimate situations where the participants are familiar with each other, these features play an important part in most communicative events. One such situation is that of family interactions: typically mother and child. However, in the special class situation with a teacher and a small group of pupils the same kind of situation frequently arises. This tendency to depend on the non-linguistic features of exchanges, the ability to convey a great deal with very few linguistic markers, is one of the hurdles that teachers need to consider if language development is to be fostered to the full. The gradual shift from the intimate situation in regard to participants and the gradual decontextualization of the content of messages, together with the shift from the familiar setting of home or classroom are all ways to ensure that linguistic elements carry a greater load in the communicative event.

LANGUAGE ACROSS THE CURRICULUM:

In any school day there are constraints on curriculum. There are physical breaks in time for lunch and recess. We have many different claims on what we might decide to do in the time that remains. Nevertheless, no matter what is done, language is inevitably a part of it. So that the term "language curriculum" is rather ambiguous as language can be seen to over-arch the whole curriculum. Although there is a need to be aware of this problem this does not justify a failure to tackle the various ways that language operates in the curriculum generally or in the language curriculum more specifically. As soon as the child arrives at school there is a need

to communicate. This involves both teachers and pupils using language as a tool. Language across the curriculum is inevitable despite any failure to recognise this in recorded policies or programs. However, failure to acknowledge the full extent of language use in policies and programs may lead to a very narrow view of language and to rather restrictive programs, activities, etc.

SOCIAL COMPETENCE:

Note has already been made of the complexity of communication in human interactions and also of the way in which communication, language and thought interlock in everyday encounters. Now to move a rather large step back from this view: The development of communicative competence is an inevitable and indeed a crucial aspect of social competence. Hierarchies of skills that make up many of the social training programs in special schools are not only often completely divorced from ways of behaving in the real world, but even more importantly treat this crucial concept in a most superficial way, failing to understand both the complexity of what is involved and the extent to which communicative interactions are an integral part of the whole process. The ultimate goal is for children to develop as social beings, able to fulfill their needs and achieve their own goals, given that these develop in terms of their relationships with others. It is inconceivable to think of a competent individual unable to communicate. If children are to grow in such a way that they are able to function appropriately in as wide as possible number of social contexts, there is then a much wider range of options open to them, in terms of increased life chances.

The greater one's language competence, the greater one's communicative competence will be. In that sense, language, communication, and social

competence are embedded one within the other.

Often we work in the language area with insufficient regard for communication more generally or for social competence. This is partly because there is a lack of understanding of the relationship between these aspects. This is also partly due to the tendency to divide school programs into discrete areas. There is also the problem of being able to make the content of school programs relevant from the pupil's point of view. An integrated approach to programs often helps ensure that there is a direct relationship between each level, and enables students to perceive what does on in school as relevant to their personal needs. Learning skills in isolation has failed to achieve the levels of social competence that we aspire to for our pupils. From the pupil's point of view immediate accomplishment of important ends denotes relevance.

What we need are programs that ensure the development of social competence. To achieve this goal we must look at the relevance of the programs and the direct relationship of communication and language development to the accomplishment of this end.

COMMUNICATIVE COMPETENCE:

Some hearing-impaired children have low language skills, yet well-developed interaction skills in communication. To understand this, we need to look at the beginnings of communication. The whole model of looking at infants, instead of looking at first words as being the beginning of communication, is now looking at the initial interactions of mothers with babies in their arms; the reciprocal reactions of babies reaching out to

mothers and mothers reaching out to babies. The whole framework for language competence is seen as slotting into this "primitive" communication. Communicative competence is built up in these very young infants. I think we need to use exactly that model when we are looking at our language-delayed children. We need to look at the kind of communicative competence that our students have and to realize that the language that we are trying to impart is going to slot into this previously acquired facility to communicate. This requires looking at what the area of communication involves. Communication is not a unitary concept, rather, it is a repetoire, so that each individual, on moving from one setting to another, communicates in a different way. We can start by using a linguistic model to look at this development.

Moving from one social setting to another often involves moving from one social group to another. We make speech adjustments to the two-year-old just as we make adjustments to an eighty-year-old; i.e., we talk in quite a different way. We may use a particular register to the young child, a similar register to an infirm eighty-year-old, or a second language person whom we think doesn't have very good English. This register has been called "Motherese". The repetoire that we use varies in each of these settings, at the phonological level.

Now, a lot of work has been done on speech with the hearing-impaired child, particularly in relation to articulation. A lot of work has also been done in the syntactic area, i.e., looking at the grammatical structures that children use. More recently work is being done in the semantic area, i.e., looking at the kinds of meanings that the children are conveying with limited linguistic forms. With hearing-impaired children we are particularly concerned with the complexity of the ideas that deaf children can convey with the limited language that they use. And finally we need to look at the pragmatic features of language, i.e., the social uses of language, what

Dell Hymes and others call "sociolinguistic rules" or "rules of speaking".

"Rules", not in the prescriptive sense of the word but "rules" meaning a systematic way of describing what occurs in particular contexts. Rules of speaking refer to, for example, a system that enables us to predict what might occur in a particular kind of communicative exchange; situations like a telephone call or on walking into a shop. What is likely to happen; who is likely to speak first, and so on.

It is important to look at children's development in these kinds of communication concepts. Social understanding involves the idea of presupposition, "I know that you know that I know". Typically, children commence an interaction assuming that you already possess certain background knowledge. If two brothers and a sister told you that yesterday it was their brother's birthday, they can start off by saying 'It was good fun last night', knowing that you will know that they are talking about their brother's birthday party, because they told you about that just before they went home yesterday. This is quite a significant stage for children to reach. It is also the sort of stage we need to monitor. It seems to be the thing that deaf children do quite well at. The example that has been given demonstrates that the things you share in common you can presume to experience, or have knowledge of, mutually. That can be one of the advantages of the schools for the deaf or one of the disadvantages. Hearing-impaired children in special facilities are typically in classes of six or seven and have one class teacher. At home they have a mother and father with perhaps no more than two or three brothers and sisters. The children are very often in a context in which there is a great deal of mutually shared knowledge, and that means that there is less necessity to use linguistic features in a communicative exchange because more can be pre-supposed. There is less need to elaborate things.

So that the more distant socially someone is from you, the greater the need to elaborate linguistically. For the young child a continuum might be from mother to a stranger that he might meet in the street. Along the continuum there is a progression in which less and less knowledge is mutually shared. So different things need to be done with the language that is used. Much the same process occurs in regard to knowledge of the world. On meeting a fourteen-year-old it is presumed that certain things about the world can be said and will be understood. If the fourteen-year-old happens to be intellectually handicapped, it may suddenly be realized that you can no longer make such assumptions. There is further uncertainty about what assumptions can be made. Such uncertainty frequently results in communication breakdown.

The following is a very abbreviated form of Dell Hymes' way of looking at what is involved in the social context. He has provided one particular framework for studying factors involved in the relationship between features of social context and communicative interactions.

First - What is your perception of the situation? You might think of the context of a party. Who are the participants, who is speaking and who is being addressed? Who is standing close by and what is the tenor of the message? What is the topic of the conversation? How often does the topic change, and what are the cues that mark the changes? How are these indicated in conversations? To what extent is the channel important: visual or auditory, speech, signing and writing, and so on, i.e., how is the message conveyed? Paralinguistic features including tone of voice are most important in an intimate context. "It's not what he said, but the way that he said it". The paralinguistic features often dominate over the linguistic. You can be told "No" and yet be sure that if you ask again the answer will be "Yes".

It's just the way that it is said. Yet the English word "No" (i.e., the linguistic element) is exactly the same in both contexts. It is the paralinguistic and non-linguistic features that have changed: The suprasegmentals, the tone of voice; the facial expression, body stance, and so forth.

We need also to take note of the function of the language. What is the purpose of the interchange? What is hoped to be achieved? There will be variation in the register or style which involves selection or adjustment depending on the answers to these two questions. At a formal occasion such as at a party or a business affair, a high form or standard register may be expected, whereas an interchange between teenagers may include informal features, some specific to the group.

Finally, interactional analysis involves the notion of reciprocity, the notion of feedback, of noting when there is an interchange. What cues the interchange? In the case of children, how well can they keep up a conversation exchange? This includes the ability to introduce a new topic when a previous topic is flagging, and being able to keep the interchange going while you want to. You have the power to control, by introducing something that you know will be interesting. You may hope that your conversational partner will have something to tell you about in turn.

The acquisition of competence in the interactional features of discourse is not yet fully understood. Central to the problem is what Hymes refers to as "norms". This involves appropriateness and authenticity. If we are concerned about the teaching of communication, we need to find out what the norms are. We need to find out what people do and say in real life situations. This information is not available from any course books. What is provided

in many language course books is often highly inappropriate. This is particularly the case in everyday interchanges. Consider for instance, how often "please" and "thank you" are used and what the alternatives are, e.g., "Do you mind if I ...". Often hyper-correct forms are used when children are taught how to be polite. This is not a simple problem to solve. How can we discover what it is that people say in real life situations when we don't "know" what we say. We don't know what we say, and yet we do know! Obviously in a particular situation we can be polite, so we know what it is that we say, but when it comes to deciding on targets to teach, appropriate forms are often difficult to recall. We call this pre-reflective knowledge. It is the sort of knowledge that cannot be retrieved without specific observation to rely on. So we have to rely on recordings. We can analyze recordings using socio-maps and actually writing down what it is that people say. This provides us with better language and communicative acts that we want our children to engage in. This is important if we are going to decide to 'teach' communicative interchanges. The alternative is to introduce children to a whole range of situations where interchange will occur naturally. We need to move out of the classroom often because the range of ways of behaving that are appropriate in classrooms are not necessarily appropriate outside of them. The use of role play is even more sophisticated, hence more difficult for children. As we are not able to spend all day outside of the classroom, then we need to make some decisions about ways to overcome the problem of making teaching authentic. We are looking at the whole problem of viewing communication as a repertoire and of making selections within it. Dell Hymes describes sociolinguistic rules at three different levels. First we have alternative ways of saying the same thing. Although there are different alternatives, there are some features that co-occur. For instance, if a certain kind of phonological feature is used this has implications at the syntactic level.

LANGUAGE LEARNING SITUATIONS

At a Special Education Seminar in Cowes some years ago Anne Hoey, a language consultant with the Special Services Division of the Victorian Education Department, talked about language learning situations in schools. She discussed the kinds of situations in which children learn language and categorized these into three different areas. This model can also be used to consider different aspects of language programmes.

The three language learning situations illustrate the importance of a "Language across the curriculum" approach to language programs. Language is involved broadly across the curriculum: hence language use can be viewed in three different ways.

First, there is the conversation-based aspect of the programme. This is the key area, the one in which most work needs to be done, but the one that is the most difficult. Conversation is an inevitable part of any school day even with the most traditional teacher who prefers a "ring-master style", an active assertive teacher with passive-receptive students. However, few teachers maintain this style throughout the day. Pauses and changes in activity are inevitable as are pupil-to-pupil and pupil-to-teacher interchanges that accompany them. This occurs even in the most traditional or the most authoritarian classroom. Whenever teacher dominance is reduced so the amount of incidental conversation in classrooms increases, you get student conversation fostered.

Part of the programme should be designed to enable children to talk with each other. This is the part of the programme that is the most challenging and the most exciting one, as most children learn most about language and communication in informal conversational interchanges. In the

conversation-based part of the programme, it is the topic interchange that is crucial.

The next aspect of the program is in the activity-based sections. Irrespective of whether there is an integrated studies programme or traditional subject areas, or new curriculum areas, a variety of activities will result. In school activities a variety of tasks are carried out. In each case it is the task itself that determines the language that is used. It is through language use that tasks are accomplished.

The language used needs to be authentic. To be authentic it needs to be used spontaneously. Very often when a teacher decides that an aspect of language needs to be taught, an activity is used to teach it. Care needs to be taken to ensure that the whole lesson is authentic, that the language used is appropriate, i.e., is that what is said when that kind of activity is undertaken?

It is important in an activity-based program that the actual language used is determined by what is being done. Of course, there are some activities, some topics that naturally lead to the use of certain language forms, e.g., a discussion of rules leads to the use of negatives, an investigation of maintenance produces the use of passive, the following of recipes to imperatives.

The third language learning situation involves specific teaching. In this situation a decision has been made that certain communication needs specific teaching. Typically what is done in this area is to look at certain aspects of language. Quite frequently there is a focus on phonology. Thus we have a Ling programme. In Syntax we may use Tate or the TSA or other programs. A great deal of specific teaching may be done on both of these areas, whereas other areas (semantics and pragmatics) are only covered incidentally.

The three language learning situations thus are:

1. conversational settings
2. activities
3. specific language teaching settings

"Language teaching" may be appropriate only the third situation. The above thus is not a model of language teaching. It is a model of the situations in which children learn language. In the conversational settings what we are concerned with is interchanging ideas, information, etc.; you may be greeting somebody, but you are really not "teaching" language. However, if you find that you are working with ten- and eleven-year-old hearing-impaired children who are not using any auxilaries, not marking verb tenses at all, but are marking time by using adverbials like "before", "yesterday" and so on, in this is the case a decision may be made to "teach" them. Note that this involves a syntax program, not merely word knowledge or vocabulary. At a certain stage children can intellectualise the process of learning. They can be shown transcripts of what they have said and how we say that in Standard English, and shown the difference and then suggest that this is a problem that needs special teaching.

This problem is going to form the basis of the language programme for a set period. We are actually learning about language and that is why it is important to see language as a medium, a form and a topic.

We might introduce games, or we might introduce other activities for the purpose of providing opportunities for children to use language. Activities can be designed so that it is the playing of the game that has to be done, but to play the game a particular language form needs to be used. It is a part of the game, the language used is lost in the game. This is

the ideal situation, children carry out an activity while simultaneously using appropriate language. However, it is very difficult indeed to achieve.

ASPECTS OF A LANGUAGE CURRICULUM

The language curriculum appears to divide naturally into oral language development and literacy covering the four areas: listening, speaking, reading, and writing.

In the early stages the child will comprehend far more than he will be able to produce. He will be able to understand more than he can say, to read more than he can write, but to understand and say more than he can read. That is a typical model for the child in our school. It is not the adult model, the adult model is one in which you can read more than you can understand (through listening) and you can write more than you can say. If we have gone to a very difficult lecture, we can understand that language without necessarily being able to speak at that level of complexity, but then when we get to the written area we can all read at a more complex level than we can understand when somebody speaks to us. So that if a professor stands up and lectures to us, we might understand very little. However, if we take the lecture and read it, we may well understand it. The model is really quite different for an adult and that is the final goal of teaching hearing-impaired children.

This model is useful when decisions need to be made about what to teach, for instance, in the reading area. For example, if a child can talk within a certain range, then his reading target will need to be within this range. You will not be going outside what it is he can say. A language experience approach which involves recording what the child actually says, follows this model.

In a typical spelling lesson a prescribed word list is used. Each lesson involves a number of words from the list. When these are presented to many hearing-impaired children, they may know only a few of the words. In some cases this may involve learning a word at all four levels simultaneously. If the list is based on word frequency, then most of the words will be function words, almost all of which have multiple meanings, which in any case, as has previously beer stated, constitute a syntactic rather than a vocabulary problem. A set of spelling words selected in this manner can be learned in the short term but only rarely be recalled over time. Of course some words have immediate saliency, e.g., a pop group, a car brand name. But in general, what we are looking at is the model in which we are selecting for spelling or writing from what the children can read. We are selecting for reading from what children can say.

We need also to look at the kind of interaction patterns that occur in classrooms. There is a need to consider a variety of models. Is the ring-master model the dominant one? This can take the form of the teacher at the front talking at the children, e.g., story or lecture, or where there is a formal lesson, where the teacher talks at the children, but then questions them in turn to make sure that they are still attending or comprehending. The first is a uni-directional model. In the second children respond but it is always the teacher who initiates. This continual checking involves "known answer" questions.

Alternatively you may have "individual presentations" (i.e., the child knows that the teacher knows the answer), where the child comes out and actually talks to the group. This is often the most difficult situation to handle in a classroom. It may be difficult enough for a child to talk one-to-one, but for him to maintain the interest of the whole group is often very, very difficult. Difficulties also arise with group discussions. It is particularly

difficult for the teacher to be an equal member. It is also difficult to ensure that each child contributes. Other interaction patterns involve small group project work, and individual work.

What we need to do is to look at ways that teachers can monitor the kinds of interactions that occur in their classrooms, e.g., how often, for how much of the time, do certain sorts of interactions occur? Given the constraints, how often should they occur? Particular note needs to be taken of how much of the time the teacher talks and how much of the time the children are talking. Who needs the most practice? And who's getting it? The whole problem of teacher talk involves studying communication techniques in the classroom and the kind of interactions that occur. If we set up particular programmes, or adopt certain teaching strategies, what implications does that have for the kind of interaction patterns that result? This also involves considering particular teaching styles. Careful monitoring can be done with audio- or videotapes. Videotape particularly is an excellent medium for monitoring how successfully this is done.

The whole area of evaluation and accountability has not been raised, but very limited notions of accountability and the very rigid philosophies of assessment are really one of the big problems that we face. There are many difficulties and particularly in schools for the deaf. For instance, tests that are standardized on hearing children are used, yet in texts now available we are reminded of the inappropriateness of these for hearing-impaired children and yet they are still widely used.

What we are unable to capture are areas of competence. Consider knowledge of the world. Often this is not the sort of world that is valued in schools. A lot of our children come to school and teachers say the child has not really had "experiences". But all children will have had an incredibly wide range

of experiences. It seems to be mainly a problem of which ones are valued. Which ones are accepted in classrooms, which ones are taken up and expanded.

Returning to the problem of encouraging children to talk. In facilities for hearing impaired children we have such small groups, we may have say six to nine children, that we have no excuse for the limited amount of talking children do in schools. One of the reasons that there is such a problem is that there is the conflict, often the teacher is the only competent model that those children have, so teachers may feel quite frustrated when they see two deaf children sitting down talking to each other, often using minimum language forms to convey meaning, and we want to intervene immediately and give the children the appropriate language.

In summary our task for this week is to consider the implications of all these factors for a school curriculum. While we might agree with school-based curriculum, even be firm supporters of it, nevertheless there are often presumptions made. We presume that we have expertise in curriculum design, presume we have time available and presume that such time is made available for curriculum development. If these conditions do not apply then there may be fragmentation occurring because of school-based curriculum.

While we might support school-based curriculum this does not necessarily imply a rejection of the concept of centralised curriculum design. One advantage of centralised curriculum guidelines is that these may alleviate some of the fragmentation that occurs.

Many educators agree with centralised curriculum developments so long as these are not prescriptive. Perhaps a group like this should produce a document that would be a curriculum statement that could be used as curriculum

guidelines. It would not, however, be a document that could be taken back to a school as a prescription of how to procede with a particular group of children. Hence the school-based programs come out of what is provided centrally as guidelines rather than core curriculum. That is what I hope will come out of our discussion this week: the initiation of such a task.

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APPENDIX A

DAILY ROUND COMMUNICATION ACTIVITIES COLLECTION

by

D.J. Power

One of the major research projects necessary at the pragmatics level of communication will be the delineation of major communication activities required to effectively carry out one's ordinary Daily Round.

Such activities consist of greeting, leave-taking; allowing, refusing; giving and accepting praise and criticism; requesting and giving information; and many others -- all conditioned by the setting in which they take place and the other persons who are present (their social status, how well we know them, etc.).

Major settings of the Daily Round are home, (including cooking, eating, dressing, chores, reading, social "chit-chat", etc.), travelling, shopping, classroom, staffroom, meetings, sporting and other leisure activities, and so forth.

Major persons in the Daily Round settings are spouses, children, parents, colleagues, superiors, pupils, shop personnel, etc.

The interaction of activity, setting, topic and person/s produce the Communicative Transaction (functional language use).

The Communicative Transaction is carried by a particular set of linguistic and para-linguistic features of utterances which include syntax, phonology (including both articulatory and supra-segmental features such as intonation, stress, etc.) and non-linguistic kinesics ("body language" -- including posture, gestures and facial expression) -- all of which are necessary to convey the full meaning of the transaction.

It is important to notice that there is no one-to-one relationship between a particular transaction and a particular syntactic structure,

e.g., depending upon the setting and person/s addressed, the activity of getting some-one to shut the door may be:

Statement:	It's a bit windy with that door open.
Question:	Will you shut that door?
Indirect Question:	Don't you think it's a bit windy with that door open?
Command:	Shut the door!
Indirect Command:	I told you to shut the door.

and so on ....

Degrees of politeness, intimacy, necessity, jocularity, etc., may be added by optional use of "please" in the Question and Command, "asked" instead of "told" in the Indirect Command, "blowy" instead of "windy", etc. The possibilities are almost endless - especially when stress, intonation and gesture can all also be used in any combination with all given syntactic forms -- not to mention the presentation of such possible nuances as the fact that it's that door, not this one that is the one in question!

On the other side, one form, e.g., Command, may be used to effect several functions. "Shut the door please!" depending again on setting, may mean anything from an indication that the papers on my desk are getting blown about to expressing a need for privacy because I'm about to tell you off, impart a secret, etc.

Such multiple functions for one form and multiple forms for one function constitute the core of flexible language use and must be reflected in language curriculum for hearing-impaired pupils.

In the development of a communication curriculum, one essential ingredient is the collection of as many "authentic" (= real-life) observations of transactions as possible. These provide basic data on what

needs to be included in the curriculum. Collection of such data proves to be very difficult, as such Communicative Transactions are very much the "ground" of our daily life, to the extent that we are scarcely aware of the actual forms they take, and to turn them into "figure" for detailed observation is often very difficult indeed.

The concept of Daily Round comes from the sociologist G.H. Mead via (in the sense I'm using it) Leon Jakobovits and Barbara Gordon of the University of Hawaii at Manoa. They have written at length about the Daily Round and have presented some techniques for collecting Daily Round data, and the attached technique draws upon their experience.

In most cases, observers will probably be a participant in the transaction themselves, but they do not have to be; observations of others are just as useful. Observers must be careful to record all they can of a particular observation, including para-linguistic supra-segmental speech characteristics, and non-linguistic elements such as facial expression, gesture, posture, setting, and so forth, as well as the syntax of the utterance.

A coded example of a rather common routine - greeting - is included. These kinds of routines are relatively stereotyped and simple; many other transactions are much more subtle and complex.

MT. GRAVATT COLLEGE OF ADVANCED EDUCATION

CENTRE FOR HUMAN DEVELOPMENT STUDIES

DAILY ROUND COMMUNICATION TRANSACTIONS DATA

COLLECTION FORM

Transaction: Greeting

Observer: DJP

PARTICIPANTS	SETTING AND TIME	UTTERANCE CHARACTERISTICS			REMARKS
		LINGUISTIC*	PARA-LINGUISTIC	NON LINGUISTIC	
Self; Depth colleague	Corridor O/S Office (8.15am)	1. Gidday- Nice day. 2. Yeh	1. Usual stresses 2. Hurrying on	1. Smile, lift of shoulders 2. ?	
Self; class of students	Lecture room (9.00am)	1. Good morning all! 2. Various mutters of greeting; some indistin-guishable	1. Even stress; quite loud. 2. Mumble! Mumble!		Attention - gaining as much as greeting. Has become well-recognised routine with class.
Self; own children	Kitchen (5.15pm)	1. Hi - you all! 2. Various	"Bright" - even stress	Smile; hug a couple w/i reach	A well-established routine
Several students (all male)	O/S canteen (9.30am)	Nil	Nil	1. Student comes up & knees another in backside (not hard). 2. Other slaps at him. 3. They grin at one another.	Obvious sign of familiarity in relationship well rehearsed and expected.

APPENDIX B

EXAMPLES OF ACTIVITY - BASED APPROACHES TO THE DEVELOPMENT OF COMMUNICATION COMPETENCE

These examples, taken from Power and Hollingshead (1977 ; p. 25ff.), indicate how recurring themes and specially devised activities may be used to provide input for development of communication competence in cognitively stimulating authentic environments in the classroom. Although these are used to teach passive voice and verb phrase negation, any syntactic structure's functional use can be taught via similar principles.

1. Developmental Program: The Passive Voice

Several aspects of the regular program that very often have a recurring place each year are recommended for utilization in providing input of passive.

(a) Current Events appears as an on-going topic throughout most school years. It fosters an interest in the world and is often covered as "News" or "Current Affairs", involving discussions from the newspapers, T.V. programs, etc. From the very early years pupils draw the attention of their teachers or teachers draw the attention of their pupils to items that are of interest. Very often these are items reported in newspapers or on T.V. It has been found (Power, 1971) that the passive form is very frequent in newspapers so that we see this as a rich source of useful items right throughout the school life of the child.

(b) Processes and Products. As soon as the school program begins to focus on the work place as part of community studies, a start is made on science "experiments" or social studies topics. In fact when any topic on processes and products arises, discussion of such topics can involve passive sentences with fairly high frequency.

(c) Science Experiments. Towards the end of the primary school years pupils will be doing more "experiments" in Science and Nature Study. Discussion of and reporting of these experiments provides an ideal vehicle for passive sentences: "The water was added to the acid", "The seeds were grown on cotton wool", etc. Virtually all work in these areas can be couched in passive form as desired.

(d) Mathematics. The analysis of tables, figures, graphs, etc., may be utilized for input of passive sentences in the guise of mathematics lessons. This can often be integrated with Newspaper and T.V. program analysis. E.g., on the road toll: "Find out how many pedestrians/drivers were killed/injured on the roads last weekend?", etc.

2. To demonstrate the way in which aspects of syntax learning/teaching can be integrated into an on-going classroom program we suggest some themes (taken from the Reading Rigby Series) and have detailed particular topics under each theme in which some types of passive sentences appear appropriate. The themes are:

Home, Family and Friends

Our Community

Man the Builder

The Man-made World

The World of Nature

Conflict and Competition

Although these themes have been suggested as particularly relevant for particular age groups, most can be taken over a wide range by the introduction of material at appropriate vocabulary and interest levels - and of appropriate complexity and cognitive challenge which will vary depending on the breadth of experience and competence of particular groups.

(a) Home, Family and Friends: extending for older pupils to Great Events: Birth, Marriage, Death; Predecessors: the family tree, cultural diversity, etc. For example: "I was born in 1965. My mother was born in England. My parents were married in a church/synagogue/registry office." etc., etc. Sample Verbs: "born, buried, married, engaged." The History of one's own neighbourhood: extending into city, nation, and the world. For example: "Our school was built in 1916. The town hall was planned by a famous architect." Sample verbs: "settled, founded, built, developed, governed, policed."

(b) The Man-made World. Community: Shops, houses, supermarkets, transport, services. For example: "What can you find out about your street? Garbage is collected on Monday and Wednesday. Street lights are turned on at six o'clock. The streets are washed by a special truck once a fortnight." etc., etc. Sample verbs: "delivered, repaired, cleared, sold, driven." The Work Place: Occupations, tools, factories, e.g.,

Manufacturing products and processes: Sample verbs: was, is)) made by were, are)

(and various detail verbs for "made", e.g., "baked, sold, cooked, built, carried, shipped, bottled, packed, manufactured, printed, published", etc., to the limits of local opportunity and teacher ingenuity.) Appropriate subject and object NPs can be inserted, depending upon the activities covered. Deleted forms can also be used where natural. Occupations: (What do people do to help us?) For example: "Planes are flown by pilots. The plumber repairs the pipes. Letters are delivered by the postman. The carpet was laid at the weekend. "Sample Verbs: "Built, made, used, laid, sold, taught, flown, nursed, delivered, mended, fixed, repaired", etc., etc. Tools: (What tools and machines do people use?) For example: "Sewing machines are used by dressmakers. Typewriters are used by typists."

Sample Verbs: "Used, driven, sewn, ridden."

(c) The Natural World. Activities: The Nature Table. For example: "These rocks were found in a cave. A trip to the zoo: For example: "The monkeys are kept in cages. The lions are fed at 4 o'clock." Sample Verbs: "Planted, grown, picked, fertilized, packed, collected, dried". Destruction, Disaster: Fire, famine, flood, storms, earthquakes, etc. For example: "One hundred houses were flooded, many roofs were blown off and cars were overturned." Sample Verbs: "Damaged, torn off, smashed, overturned, blown down, flooded," etc., etc.

(d) Competition and Conflict. All the topics and activities outlined below have been found to be very useful in introducing passive in natural settings for older groups of (say) ten plus years. Again we leave the details of activities and lesson plans to the ingenuity of the teacher. Violence: Crime, both real from the Newspapers and from T.V. drama. Tables of prevalence of various kinds of crime; comments on them; analysis of T.V. programs, etc., can all be used. The Violent Crimes: For example: "On Saturday night three men were killed in a city hotel. After the incident several people were questioned by the police." Sample Verbs: "Stabbed, beaten, killed, raped, held up," etc., etc. The Social Crimes: For example: "The Minister for Education reported that twenty schools were damaged by fire in the past twelve months." Sample Verbs: "Taken, stolen, burnt, smashed, broken, lost, burnt, hurt, blamed, arrested, fired, punished, locked out," etc., etc., personalized for every student in as exciting a way as possible. Many good stimulus pictures are available for this activity. Safety: Rules. Road Laws, school rules, factory regulations. For example: "Cars are driven on the right hand side of the road. Food must not be eaten in the library. Safety helmets must be worn on the site at all times." Sample Verbs: "Ordered, instructed, told." Accidents. The road toll, home and other accidents. For example:

"Two small boys were drowned in a dam at the weekend. Their bodies were found by rescue workers this morning." Sample Verbs: "Injured, killed, smashed, recovered, drowned, electrocuted, poisoned," etc., etc. Sport: Results. A very great interest gainer and sustainer. Particularly useful for reversible passives in contexts where scores make it obvious who won. For example: "Team X (27 points) were beaten by Team Y (56 points)". Pupils can develop sports news reporting services for the rest of the school from actual sporting events; keep tallies of wins and losses, etc. Sample Verbs: "Beaten, overwhelmed, defeated, outshot, out-scored, thrashed," etc., etc. (Daily papers will provide many more.) Rules. Learning the rules of the game. For example: "At the beginning of each game the ball will be bounced by the umpire in the centre of the field." Sample Verbs: "Caught, thrown, marked, taken, hit, knocked," etc., etc. Accidents. For example: from an (imaginary) interview with a famous racing driver: "I smashed into the wall. The car was wrecked and my left leg was broken. Luckily, nobody was killed." (Teachers or more advanced pupils can help with scripts for T.V. shows, school paper reports, etc.) Reactions. For example: "I am interested in football. I was bored by the match. I was amused by the gestures of the players. I was horrified by the kicking in the football match. I was embarrassed because I missed an easy shot", etc., etc. Sample Verbs: "Pleased, delighted, welcomed, worried."

3. "Syntax Model" Games. To link in to the topic "Violence" we developed a series of games to introduce pupils to "Cluedo": A game commercially available which can be adapted to a very great range of cognitive demands to maintain pupil interest.

Each of the games involves pupils using an utterance modelled by the teacher, e.g., in the format of Cluedo, each player is able to guess the identity of the "murderer". To do this a child says "I think Dr. Black was murdered by Mrs. White" and he must then add the weapon and the location of the "killing".

The introductory games that were designed to introduce pupils to the complexities of the commercially available game are based on the syntax model game format. The following were examples of model sentences used in these games: "The body was found in the kitchen", "I think Peter was murdered by John". The game situation requires that correction is only made for mistakes in the rules of the game, not in the structure of particular utterances. The "modelling" of the teacher and/or more advanced pupils carries the force of the learning, not correction.

Other games can be designed around other topics and at other levels. E.g., Fromberg (1976) suggests using concrete materials: A set of tools plus pictures of people in a variety of occupations. The teacher starts the game by modelling the sentence: "The whistle is used by the postman". Pupils are then allowed to select two cards and must produce a sentence similar in structure to the one modelled by the teacher. Fromberg suggests having materials available as cues, "If the primary purpose is to encourage expressive language, then information load should not become a hindrance since one can hardly express oneself about unknown data (p. 256)." Repetition also plays an important part in this kind of activity, "The repeated structures serve as a contrasting figure against a background of familiar language flow. In as much as the teacher's models reflect the actual game, they will be most used by the children. This is reflected in the folklore tradition of childhood street games, e.g., for skipping, choosing teams, taking turns (p. 254)."
The following activities may be useful as introductory activities to "Cluedo". Although they were devised for intermediate and junior students they could be adapted to the interest level of senior students.

1. FIND THE MURDERER:

One child (the detective), leaves the room; another child (the murderer) mimes murdering a classmate. The detective then returns to find the murdered person

and prceeds to line up the suspects (the remainder of the group). The detective makes an accusation "X was murdered by Y". The suspects either reply "No!" and all move towards him by one step, in which case he accuses someone else. "X was murdered by Z". "No!" They take another step.

X X X X X Suspects:

fake knife
from prop-shop

X detective

victim faking
death!

2. 'MURDER':

Children sit in a circle. Teacher hands out folded papers; on one is written - 'MURDERER', the others are blank. While no one is watching the 'Murderer' winks at a classmate who screams and mimes being murdered. Students then suggest who the murderer is: "I think John was murdered by Susan!" Once again the teacher can take the first turn and model the sentence. "No, John wasn't murdered by me," or "Yes, John was murdered by me." Murderer then repeats the process 'murdering' another classmate. The guessing continues until the murderer is discovered. The last "victim" then distributes the papers again and the game continues.

3. GUESS THE SCENE OF THE MURDER:

VERSION A.

Materials - Mats each labelled with the name of one of the rooms in "Dr. Black's" house (number depending on number of children in the group). A silhouette of a body is placed under one mat by the teacher without the 'guesser' seeing.

Procedure - Each child stands on a mat. Children take turns to see how many guesses are needed to find the body.

The teacher commences the game by modelling the sentence.

"The body was found in the kitchen."

The child standing 'in' the kitchen lifts the mat to prove that the body was not there, "No, the body was not found in the kitchen," etc. The guesser has another try, till, "Yes, the body was found in the _____".

(Expression on children's faces may be used as cues to who has the body under their mat).

Game is repeated till all have a turn.

VERSION B.

Materials - (a) The room cards from the Cluedo box.

(b) Eight blank cards plus one with a silhouette of a murdered person.

Deal out cards (b) face down one to each pupil, then Cards (a) are dealt on top of cards (b) face up.

Each player checks his cards and replaces them.

The game continues as for Version A.

4. INDIVIDUAL LOTTO:

Each student has a picture and matching sentence (different sentences in each case) as illustrated. Corresponding matching cards are turned face

Picture (from Cluedo Box; or drawn by teacher/ pupils).	Dr. Black	was	murdered	with a knife.

down in the centre of the table. Each student picks up and discards in turn. Student who is first to complete his card is the winner. (At first students match the words but later they may be required to construct a sentence from picture clue alone.)

5. FIND THE SENTENCE:

(This game was designed by the staff at Queensland School for the Deaf.) This game was designed to introduce the students to the idea of eliminating possibilities: It consists of three sets of cards -

(a) red cards on each of which is written a noun phrase

(b) yellow cards with a passive verb phrase

(c) green cards with 'by' plus a noun phrase.

One card is taken from each group and placed in an envelope. The remaining cards are dealt out among the players. Each child has a check list of sentences which includes all items on cards. He marks off the items corresponding to the cards that he holds and gradually eliminates others as the game proceeds. Children spin a disc in the form of a top which has alternating question marks and blank spaces. If the disc lands on a question mark this gives the player the opportunity to ask to see one card (selected

at random) from another player. These items in turn are eliminated. The winner is the player who is first to guess the sentence in the envelope. It is quite likely to be a 'nonsense' sentence which the group may enjoy illustrating.

6. CLUEDO PROPER:

After having played introductory activities to introduce suspects, weapons and location of the body, a final activity could be used to establish the format for each prediction - i.e.,

'I think Dr. Black was murdered by X, with a Y, in the Z room.' - stressing the sequence - 1. Murdered person - 2. Murderer - 3. Weapon - 4. Room.

Using the cards from Cluedo, one card is selected at random, at first just from the suspect category, but later increasing the complexity by including one of the weapons and finally one of the location cards. These cards are placed in the black envelope provided with the game. The students can be given the check lists from the Cluedo box and encouraged to mark off each suspect as it is eliminated. For example as each student names a suspect all the children cross of that name if his guess is found to be wrong. This initial stage is rather easy but as the other categories are added the game becomes more complex.

In the initial stage this format could be displayed to aid student memory.

Dr. Black	was murdered by	Rev. Green	with a dagger	in the ballroom
		Prof. Plum	" " candlestick	" " library
		Miss Scarlet	" " spanner	" " lounge
		Mrs. White	" " revolver	" " study
		Colonel Mustard	" " rope	" " hall
		Mrs. Peacock	" " lead pipe	" " kitchen
				" " dining room
				" " billiard room
				" " conservatory

7. RUMMY:

The Pack - A pack of cards which would include six cards on which is printed (typed) 'Dr. Black'; six with 'was'; six with 'murdered'; six with 'by'; one for each suspect - (i.e., another six cards); one for each weapon (six cards); one for each room (nine cards). This makes a pack of 45 cards in all. (Once again the above format could be on display in the early stages.) The rules of Rummy have been adapted in the following manner.

The Deal - The number of cards dealt to each player depends on the number playing; for two players deal eight; for three, deal six; for four, five. The remaining cards are turned face down in a stack, the top card is turned over.

The Play - A player may in turn draw from the stack or take the top card. He may put down face up any number of cards, so long as he starts with or builds onto 'Dr. Black was murdered', i.e., any player is able to put down any number of cards by building onto the cards laid down by other players to form the appropriate format, E.g., 'Dr. Black was murdered by Mrs. Green with a knife'. This may be done (when it is the player's turn) by building onto the basic deleted sentence, or by putting down additional deleted sentences. If a player discards a card that he could have put down the first player to call 'Rummy' puts down the card and then may discard one card from his hand. (When the stack is exhausted, the discard pile is turned over to make a new stack.) The first player to go out by putting down his last card is the winner.

The Scoring - All cards retained in the hands of the other players count ten points against them.

Verb Phrase Negation (from Power and Hollingshead 1978; p. 17ff.)

In the project from which this Package was developed, we found that children as young as ten years of age were able to make learning progress from the more structured activities which we provided. However, we still believe that there are useful activities which can take place before this age, and we therefore provide as previously, a "two-stage" development of activities and materials for teaching negation to hearing impaired children.

> A set of "Developmental Activities" designed for students up to ten years of age or so, in which the scene for negation is set, and in which as many general activities as possible for the input of negative structures in English are provided, without any insistence on correct output by the child, or any direct correction of his products in negative sentences. We believe that the techniques that we outline here are adaptable for children as young as six or seven years of age, and if necessary, can be extended to children beyond ten years of age.

DEVELOPMENTAL PROGRAM FOR STUDENTS UP TO TEN YEARS OF AGE

We would note that teachers should not feel that they need to be rigid about finishing off the Developmental Program at exactly ten years of age. We feel that it is very much a matter of the judgement of the teacher as to whether a pupil younger than ten years of age is able to go on to the more structured activities outlined below, or whether pupils beyond ten years of age will still need to be continued with the more loosely structured developmental activities which we now present. All of the individual capacity, the general maturity of the child, and, in particular, his linguistic maturity (perhaps as evaluated by the informal methods we are about to outline) should

be used by the teacher in determining whether or not a pupil is ready to move onto the more structured activities.

We have noted several times that we would not wish teachers at this stage of the development of the child's comprehension and (particularly) his production of negative sentences, to be too concerned with the correction of imperfect forms. We believe that the child must develop through several stages of "incorrect" forms, in order to merely take into himself the correct set of rules for producing verb phrase negation structures in English. However, we do feel that it is valuable for teacher to have some understanding of the developmental status of their pupils as regards verb phrase negation, and that children who are still too young for the application of the Test of Syntactic Abilities may profitably be evaluated using the informal procedures which we now outline. We would suggest that these are useful for giving the teacher confidence that she is not going too far beyond the competence of a child at any given time, giving her a place from which she may keep just a little bit ahead of the developing syntactic competence of the child, and, with older children, giving her a method whereby she may evaluate whether the child is linguistically ready to move on to the more directed structured approaches outlined below.

In this part of the Package, we therefore present some general teaching activities, particularly ones where a theme is used to enable teachers to naturally and unobtrusively present to the child a massive load of input of verb phrase negation structures. The themes and activities which we present we have found to be particularly useful for introducing verb phrase negative structures in a natural context that does not strain the functional use of negative sentences.

A Thematic Approach

As with the previous Package, it has been seen as an important aspect of this work to make program suggestions for teachers who prefer to use a thematic approach to language development, or for those who like to include topics as part of their programs of language teaching, so that some suggestions have been included to show how negation can be slotted into specific themes and topics.

Authority. One theme suggested is that of Authority and in particular the topic of Rules. This topic can be further divided into such sub-topics as Family Life - Who makes the rules? School Rules - Do we need them? Community Services and the need for regulations. The individual and the law - road safety, pollution control and individual rights.

The tasks that are drawn up from these topics may be tailored to meet the different maturity levels of particular groups. For example, road law can begin with simple road crossing procedures with younger children and extend into the older age groups with the road law in relation to bicycle riding, and later to a driver education program. At each level different forms of negation may be used to describe the rules that apply, and as the students move through the school a variety of topics will pick up this theme.

For example, illustrations of signs can be collected - Don't walk on the grass. and No smoking, could involve discussions about appropriateness; where can you smoke? When can you walk on the grass? School rules can be described at a variety of levels, e.g., at the simple imperative Don't run in the hall. Don't climb on the roof. to more explicit forms for more advanced students. Students are not allowed to ... . You must not ... . Students were asked to write down a list of rules and then to discuss them in terms of whether they were necessary or not, whether they were justifiable, whether they were fair to all students. This gives the students a context in which the

repetition of the same form is appropriate and not a drill. The different forms in which rules are written depending on who they are written for can be discussed as part of a learning about language program; i.e.., how language varies depending on the context and how it is necessary to select from a variety of possible forms depending on the particular function that is to be served.

Road Safety. Road safety signs can be mixed in with other signs that are commonly seen in the community (so that this topic could be taken under a general heading of Safety or as a topic under Community; Regulations and Rules). A central feature of the tasks involved could be to extend the language of the students in regard to rule following: Perhaps to extend the commonly-used phrase What for? when it is used to mean Why do we have to ...? (When one sees the difficulty of this structure, it is quite clear why students often are unable to use this form. It involves do-support or auxiliary inclusion as well as subject-verb-agreement and also the "strange" form have to meaning must.) It would seem quite appropriate that this form be used with students of limited ability just as input, with no expectation nor context in which they are required to use the form in response. Just to have the opportunity for the teacher to use the phrase in a context in which it will be repeated quite meaningfully may be sufficient at certain levels of development.

Suggested signs: No Smoking, Silence, Don't Walk on the Grass, No Standing Any Time, Stop - One Way - Go Back, Ladies Only, Smoking Prohibited, Stop, Do Not Enter, Don't Touch, etc.

Activities could include classifying signs into categories such as

- Road Signs
- Signs in Public Buildings
- Signs in Open Places

Similarity and differences between signs in both "meaning" and appropriate context could be made in sorting tasks.

Doors and Entrances:

No Admittance.

Keep Out - Staff Only.

No Entry.

Closed.

General:

Private Property.

Trespassers will be prosecuted.

No dogs allowed.

Keep off the grass.

Out of Order.

Do not disturb.

Medical:

Not to be taken.

To be taken only on doctor's prescription.

Quiet - Hospital.

Ambulance Only.

Keep out of the reach of children.

Dangerous if swallowed.

Transport:

Do not lean on windows or doors.

No smoking.

Do not talk to driver whilst bus is in motion.

Fire and Explosives:

Highly Inflammable

No smoking.

Beach:

No swimming.

Do not dive.

Swim between the red flags.

Library:

Quiet please.

Zoo:

Do not feed the animals.

Road Signs:

Danger

Stop

No Parking

Keep to the left

No passing on bridge

Slippery when wet

No Through Road

No Exit

No Standing

Pedestrians Only

No overtaking

One way

Detour

Packaging and Posting:

Do not open until December 25.

Handle with Care.

No hooks.

Do not drop.

Open this end.

Open other end.

Glass - Handle with care.

NOTE: Public signs often use the 'affirmative' form when a 'negative' form may be easier to understand - often the negative is a semantic category of one of the words used rather than a syntactic marker. However, all such signs are useful for introducing negatives in describing the functions of various signs.

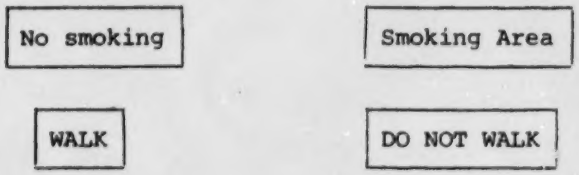
Affirmative:	Negative:
Out of Order.	It's not working.
Keep off the grass.	Don't walk on the grass.
Closed.	It's not open.
Quiet - Hospital.	Don't make a noise!
Exit only.	You can't go in that way.
Keep out.	You are not allowed to go in there.

A. Various sorting activities, e.g., matching equivalent signs.

B. Card games can be played with sets of matching signs:

'Snatch', 'Three of a Kind', 'Rummy'.

Negative and Affirmative signs can be grouped:



Several of the topics used in the passive package are used again here. These topics can be integrated into other themes. The final SLIP I topic Conflict and Competition leads well into discussing the Rules of the Game starting with simple games which have rules that are often not stated but only demonstrated, e.g., chasing and catching. Whereas "conflict" was used in relation to the passive program the "competition" aspect of the theme can be used for negation. In some games, there are implicit rules that need to be followed for the game to be 'safe', e.g., Branding and Hoppo Bumpo. In card games the rules are often written, also with sporting activities such as football or tennis. The umpire's decision can be discussed in relation to the rules in the handbook and how these may be interpreted in particular contexts. Topics such as these are appropriate for later stages or levels.

APPENDIX C

INFORMAL EVALUATION PROCEDURES FOR ASSESSING COMMUNICATION COMPETENCE*

Because it seemed to us that teachers' informal evaluations have been considerably underrated in the past and because such evaluations are the source of most decisions about the level of language structures introduced into programs, we decided that informal evaluation should be given an appropriate place in this developmental program. (Some teachers find it useful to make an assessment of each child's competence in producing negative structures from their knowledge of the child's language ability before attempting to record an actual transcript of examples from situations.)

The following informal evaluation techniques may be used in an attempt to establish which stage of development in negation a pupil is at. This involves oral assessment procedures conducted both informally and in teacher-structured situations, with a view to the collection of a corpus of utterances involving negative forms for each child in a group. It is suggested that before starting assessment or recording, each teacher might attempt to anticipate what a particular student would be likely to say in particular situations, i.e., what forms of negation they predict will be within the range of a particular child's productive competence. For example, we suggest that teachers consider whether the child makes a distinction between no and not and to what extent these are appropriately used; and whether he uses any negative routines, such as, Don't know, Can't, Nothing. (Such routines are identified by characteristic use in particular situations, often quite stereotyped.) Teachers could also examine whether when the child is negating utterances he characteristically follows a rule such as placing the negative element in front of, (or at the end of) a particular utterance; or alternatively, would the negative element be embedded within the utterance; and if this is the case, is it in accordance with a particular rule?

* from Power and Hollingshead, 1978; p. 18 ff.

Firstly, we suggest that teachers write down items that are felt to be within the child's competence.

Secondly, we suggest that teachers attempt to keep a list of the child's productions which include negatives. This appears to be much easier in the team teaching situation where one teacher could act as observer and recorder. However, many teachers are able to make notes during lessons (whether mental or written; in the latter case, using some excuse to record the utterance unbeknown to the students).

Because "naturalistic" observation is difficult for a teacher on her own, and because the full range of negative structures known to a child may be infrequent and hence take a very long time to appear, we have developed a list of suggested activities in which negatives might be prompted in relatively natural ways:

(a) "mini-contexts"

(b) "elicited imitation"

(c) "focused activities"

(a) Mini-Contexts: The following is a list of hypothetical situations or "mini-contexts" in the classroom that might normally elicit negative responses. These are only suggestive. Many of them may not be suitable to particular groups, but they may serve as an example of the kind of technique which may be used:

1. If by "mistake" you hand to John, Peter's book, thinking that it is John's. What would John say? : No. No me. Not mine. That's not mine. If you think that it is more likely that John would say That's Peter's., rather than use a negative in this context, then you can contradict him and insist that it is his, what would he say then?

2. Ask a child to go to the cupboard (store room, etc.) to bring some equipment realizing that there is none, e.g., paper or paint (i.e., something disposable) and the child expects to find it in the place to which you direct him, what will he way when he returns? No more paper. All gone paper. Finished paper. There's no more paper. Not there.

3. When you have finished using some equipment, if you ask a child to go to a nearby classroom and ask the other teacher if he would like to use the equipment now, when the teacher says that he doesn't want it, what will the student say when he returns? No want. Not now. Don't want it. He doesn't want it. He said no.?

4. There is an empty box in the classroom. If you ask a child what is in the box, he goes and looks, when there is nothing in it what would he say? Nothing. No. Empty. Nothing in there. There's nothing in it.?

5. If you ask the child to do something that you know he can't do, e.g., to reach something or to do some work that he hasn't attempted before, or to fix something that is broken, what would he say? No. Can't. Too hard. I can't do it/that.?

(b) Elicitation of Imitated Forms. An alternative method of attempting to informally assess a child's spontaneous use of negative forms, and the range of linguistic structures that he used in the process is to attempt to elicit imitated forms. A series of appropriate utterances needs to be drawn up. This list needs to be graded in such a way that sentence length and sentence complexity varies, depending on the linguistic level of the child. In noting the kinds of responses that are elicited, for example, the teacher should examine:

(i) Do students rephrase the sentence in their own grammar?

(ii) Do they say only the last few words?

(iii) Do they say only the key words?

(iv) Are they unable to respond at all?

(v) Do they make the sentence affirmative rather than negative (this is a common problem when sentences include less frequent contracted forms, e.g., 'doesn't')?

(vi) Do they change contracted forms to 'not' (or, more rarely, vice versa)?

Successful elicited imitation tasks require utterances that are not so short as to be readily retained in short-term memory, but not so long that they can't be semantically processed.

The following is a list of some of the items we used with younger children:

I don't know.
That's not mine.
I don't like that.
I can't do that.
I didn't do it.
That's not blue.
Susan will not sing.
I didn't go.
I'm not sick.
Don't touch.
Don't be late.
I don't want that one.
I won't touch it.
I didn't push John.
John wasn't at school today.
The kitten was not in the tree.
Baby kittens can't see.
Mummy wasn't at home.
My house isn't yellow.
The little boy can't read.
The bird isn't making a nest.
Dad will not buy a coloured T.V.
I don't like carrots.

The following are examples of some sentences used for elicitation and responses given:

The boys aren't in the car.	Boys not in car.
Tom isn't feeding the cat.	Tom not feeding cat.
The cats weren't in the box.	The cats weren't the box.
Mummy and Daddy were not at home.	Mummy and Daddy not....
Daddy doesn't like icecream.	Daddy not icecream.
I won't touch it.	I want don't touch. (Note want/won't)
Wendy wasn't at school.	Wendy's not school.
The kittens can't see.	The kittens can see.

Note that it was only in the last item that the child did not notice the negative and this may be due to a "knowledge of the world" problem, that kittens can see, i.e., the fact that new born kittens can't see may not be known and hence this misunderstanding may be due to the expectation that the sentence was affirmative according to what are perceived as the facts. Teachers should occasionally include in the imitation lists some affirmative sentences, so that a "set" for negative sentences (which may bias results) is not set up in the pupil.

(c) Focused activities which can be used for evaluation and/or as teaching activities.

Incongruous Pictures. Asking children to respond to incongruous pictures by asking them to describe the incongruities quite often elicited negatives, but there were some problems. For example, once students fell into a pattern of dealing with the problem this particular pattern was often repeated. E.g., one student used only the form can't; The buffalo can't sit on the bike. Crab can't on ground because crab will died, because no have sea and too hot. Dog can't have three arms.

Incongruous pictures only appeared to elicit negative statements when some students were pushed into giving explanations of their choices.

E.g., The fish is riding a bike was deemed by the child to be sufficient description of the picture without further explanation. However, when probed further by the teacher, the child was pushed into producing some (in this case, quite irregular) negative sentences. However, this activity also appears to offer appropriate contexts for teachers to use negative statements and negative expansions or modelling as responses to students comments: E.g., Right! Fish don't ride bikes.

Picture Completion. Picture completion items (modelled on those used in some intelligence tests, for example, the WISC) may be used to elicit negatives from children. Once again with some children, once a pattern had been established there was rarely any change, e.g., No eye. No door. However, this pattern effect may be avoided if different tasks are jumbled, for example, one or two picture completion tasks could be given, followed by incongruous pictures, then perhaps more direct imitation tasks. It is also possible for teachers to attempt to alter the pattern that the student is using. For example, if the student response to a certain picture with No door. The teacher can reply, That's right. There's no door in that house, and so forth.

APPENDIX D

Known Materials and Curricula for Teaching Communication Competence*

Caniglia, J., Cole, N.J., Howard, W., Krohn, E., & Rice, M. Apple tree. Lake Oswego, Ore. : Dormac, 1973 (**).

Clay, M., Gill, M., Glynn, T., McNaughton, T., & Salmon, K. Record of oral language. Wellington : NZCER, 1976.

Cooper, J., Moodley, M., & Reynell, J. Helping language development. London : Arnold, 1978.

Crystal, D., Fletcher, P., & Garman, M. The grammatical analysis of language disability : A procedure for assessment and remediation. London : Arnold, 1976.

Dunn, L.M. & Smith, J.O. Peabody language development kits (Levels P, 1, 2, 3). Circle Pines : American Guidance Service, 1967.

Fearon Reference Systems. Curriculum development library. Belmont, Calif : Pitman, 1978ff.

Harrison, P.J. & Pickering, D.M. A differential language program. Melbourne : Curriculum and Research Branch, Education Department of Victoria, 1976.

Hart, N.W.M. et al. The Mount Gravatt language development reading scheme. Sydney : Addison-Wesley, 1977-81.

Hulbert, T.G. Educational resource materials for the hearing impaired. Victoria, B.C. : Ministry of Education, Special Programs Branch, 1978 (**).

Kretschmer, R.R. & Kretschmer, L.W. Language development and intervention with the hearing impaired. Baltimore : University Park Press, 1978 (**).

Lee, L.L., Loenigsknecht, R.A., & Mulhern, S. Interactive language development teaching. Evanston, Ill, : Northwestern University Press, 1975.

McCarr, D., & Wisser, M.W. Curriculum materials useful for the hearing impaired : An annotated bibliography. Beaverton, Ore. : Dormac, 1979 (**).

McCarr, J. Lessons in syntax. Lake Oswego, Ore. : Dormac, 1973 (**).

McLean, J.E. & Snyder-McLean, L.K. A transactional approach to early language training. Columbus : Merrill, 1978.

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* This list is certainly not exhaustive. I would appreciate hearing of additional materials (Ed.).

** Specially developed for hearing-impaired pupils.

Queensland Department of Education, Van Leer Project. Overview for language development program : Years 1 - 3. Brisbane : Queensland Department of Education, 1979.

Queensland Department of Education, Curriculum Branch. Language development program for schools in aboriginal communities : Years 4 - 7 (Trial version). Brisbane :Queensland Department of Education, 1981.

Quigley, S.P. & Power, D.J. (Eds.) TSA syntax program. Beaverton, Ore. : Dormac, 1979 - 1981 (**).

Special Education Section, Education Department of South Australia. Adapting the curriculum for hearing impaired students. Adelaide : Education Department of South Australia, 1978 (**).

Special School of the Future. Curriculum guide bank. Washington, D.C. : Gallaudet College Press, 1980 (**).

Streng, A.H., Kretschmer, R.R., & Kretschmer, L.W. Language, learning and deafness. New York : Grune and Stratton, 1978 (**).

Tate, G.M. Oral English handbook. Wellington : Reed, 1971.

Tyack, D. & Gottsleben, R. Language sampling, analysis and training. (Revised ed.). Palo Alto : Consulting Psychologists Press, 1977.

Van Uden, A. A world of language for deaf children : Part 1 : Basic principles (3rd ed.) Amsterdam : Swets & Zeitlinger, 1977 (**).

Wright, J., Norris, R.A., & Worsley, F.J. Concept seven-nine. Leeds : Arnold, 1972.

APPENDIX E

Known Materials for Evaluating Communication Competence*

Caniglia, J., Cole, N.J., Howard, W., Krohn, E., & Rice, M. Apple tree : Pre-post test booklet. Lake Oswego, Ore. : Dormac, 1975 (**).

Carrow, E. Carrow elicited language inventory. Austin : Learning Concepts, 1974.

Clay, M., Gill, M., Glynn, T., McNaughton, T. & Salmon, K. Record of oral language. Wellington : NZCER, 1976.

Craig, H. Original written language inventory. Pittsburgh : Western Pennsylvania School for the Deaf, 1977 (**).

Craig, H., Craig, W.N., Bram, P., & Neisworth, R. Evaluation manual (2 Vols). Pittsburgh : Western Pennsylvania School for the Deaf, 1974 (**).

Crystal, D., Fletcher, P., & Garman, M. The grammatical analysis of language disability : A procedure for assessment and remediation. London : Arnold, 1976.

Foster, R., Giddan, J.J., & Stark, J. Assessment of children's language comprehension. Palo Alto : Consulting Psychologists Press, 1973.

Keeton, A., Lindsay, P., Reich, C., Dean, P., & Gossin, E. The language assessment battery. (Rev. ed.) Toronto : Ontario Institute for Studies in Education, 1980 (**).

Kretschmer, R.R. & Kretschmer, L.W. Language development and intervention with the hearing impaired. Baltimore : University Park Press, 1978 (**).

Lee, L.L. Northwestern syntax screening test. Evanston : Northwestern University Press, 1971.

Lee, L.L. Developmental sentence analysis. Evanston : Northwestern University Press, 1974.

Mecham, M.J. Verbal language development scale. Circle Pines : American Guidance Service, 1971.

Miller, J.F. Assessing language production in children : Experimental procedures. Baltimore : University Park Press (in press).

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* Again this list is not exhaustive, and I would appreciate notification of further materials (Ed.).

** Specially developed for hearing-impaired pupils.

Moog, J.S. & Geers, A.E. Grammatical analysis of elicited language : Simple sentence level. St. Louis : Central Institute for the Deaf, 1979 (**).

Moog, J.S. & Geers, A.E. Grammatical analysis of elicited language : Complex sentence level. St. Louis : Central Institute for the Deaf, 1980 (**).

Newcomer, P.L. & Hammill, D.D. The test of language development. Austin : Empiric Press, 1977.

Quigley, S.P., Steinkamp, M.W., Power, D.J., & Jones, B.W. Test of syntactic abilities. Beaverton, Ore. : Dormac, 1978 (**).

Reynell, J. Reynell developmental language scales (Rev. ed.). Windsor : NFER, 1977.

Tough, J. Listening to children talking : A guide to the appraisal of children's use of language. London : Ward Lock, 1976.

Tyack, D. & Gottsleben, R. Language sampling, analysis and training (Rev. ed.) Palo Alto : Consulting Psychologists Press, 1977.

Vanzuyden, P.M. Diagnostic screening test of receptive language abilities. Leongatha : Ziggy Educational Publications, 1976.

Woodward, H.M.E. Criterion-references testing and the measurement of language growth. Volta Review, 1975, 77, 229 - 240 (**).

APPENDIX F

STANDARD CRITERIA FOR THE SELECTION AND EVALUATION OF INSTRUCTIONAL MATERIAL

Teacher Level

I. IDENTIFICATION OF NEEDS
   - A. Learner Characteristics
   - B. Program Characteristics

II. INITIAL SELECTION
   - A. Search
   - B. Screen

III. REVIEW
   - A. Analysis of Material
   - B. Matching Material to Learner

IV. DECISION MAKING

Prepared by the ALRC/SO/NCEMMH Program
Distributed by NCEMMH, The Ohio State University, Columbus, Ohio 43210

Teacher Level

I. IDENTIFICATION OF NEEDS

The outcome of stage I will be: a definition of the target learner and the learning environment prior to any selection of suitable instructional materials.

A. Learner Characteristics

(The following outline is intended to serve as a guideline to the selector of instructional materials in identifying the characteristics and educational requirements of the specific learner for whom material is being sought.)

1. Has an assessment of the learner occurred, and does the resulting data specify:

a. demographic information about the learner, including:

Yes	No	NA	
___	___	___	(1) age
___	___	___	(2) sex
___	___	___	(3) instructional/developmental level
___	___	___	(4) language development or preference
___	___	___	(5) interest level
___	___	___	b. limiting conditions (medical/physical factors, etc.)
___	___	___	c. behavioral/affective characteristics
___	___	___	d. preferred modalities
___	___	___	e. strength areas
___	___	___	f. deficit areas

2. Has an educational plan been developed, based on learner assessment data, which specifies:

___	___	___	a. needed skill area
___	___	___	b. short and long-term instructional objectives
___	___	___	c. instructional strategies, including:
___	___	___	(1) sequencing
___	___	___	(2) reinforcement
___	___	___	(3) modalities (input/output)
___	___	___	(4) monitoring

Yes	No	NA	
			d. recommendations for:
___	___	___	(1) general instructional areas
___	___	___	(2) specific materials
___	___	___	(3) related activities

B. Program Characteristics

(The following outline is intended to serve as a guideline to the selector of instructional materials in identifying the overall program considerations with the specific learner(s) and learning requirements in mind.)

1. Have provisions been made for integration of the individual educational plan into the total instructional program:

___ ___ ___ a. content

___ ___ ___ b. curricular compatibility

___ ___ ___ c. format/alternatives

2. Would implementation of the educational plan be affected by any of the following environmental constraints:

___ ___ ___ a. time/cost/physical considerations

___ ___ ___ b. grouping

___ ___ ___ c. equipment

___ ___ ___ d. personnel

___ ___ ___ e. teacher skill

II. INITIAL SELECTION

The outcome of stage II will be: the identification of at least two pieces of instructional material which, on first screening, appear compatible with learner requirements and which will be considered for further review. Identification of alternative materials for examination will facilitate final selection decisions on a comparative basis.

A. Search

(The items listed below outline the most common information resources available to the selector of instructional materials. The intent of this section is to

encourage the user to investigate various potential materials information sources.)

1. Have you located recourses which might provide information about materials:

_____ a. colleagues

_____ b. commercial

_____ c. materials bibliographies

_____ d. journals

_____ e. curriculum libraries and centers (colleges, schools for handicapped, learning resource centers)

_____ f. professional organizations

_____ g. governmental agencies (national network, audio-visual center, etc.)

_____ h. information systems (NIMIS, EPIE, ERIC, etc.)

2. As a result of the above process, have you identified at least two instructional materials which appear to address the learner's needs?

B. Screen

(Under optimal conditions, a written product abstract or review will provide information pertaining to all of the items listed below, so that actual inspection of the product is not necessary. In the absence of thorough and accurate material descriptions, however, scrutiny of the material itself will be required. A secondary intent of this section is to educate both material users and material abstractors (including commercial publishers) about desirable elements to be included in product reviews.)

1. Does the material information resource provide information about the identified instructional product(s), such as:

Yes	No	NA	
___	___	___	a. instructional level
___	___	___	b. language level
___	___	___	c. interest level
___	___	___	d. sensory input and output modalities
___	___	___	e. educational subject/skill content

Yes No NA

___ ___ ___ f. format

___ ___ ___ g. cost

___ ___ ___ h. grouping requirement(s)

___ ___ ___ i. required equipment

2. On the basis of the available information, does the identified instructional material appear compatible with:

___ ___ ___ a. learner characteristics

(1) the learner assessment

(2) the learner educational plan

___ ___ ___ b. program characteristics

(1) the total instructional program considerations

(2) the identified environmental constraints

III. REVIEW

The outcome of stage III will be: an in-depth analysis of an instructional material in order to define the material's characteristics and match these characteristics to previously defined learner requirements. Implementation of this stage necessitates actual examination of the instructional material.

A. Analysis of Material

(This section includes recommended questions for determining the intrinsic qualities of the material(s) independent of specific learner characteristics and program requirements.)

___ ___ ___ 1. Are objectives in behavioral terms (specifying what the student task is, under what conditions, and level of performance expected)?

___ ___ ___ 2. Are techniques of instruction for each lesson either clearly specified or self-evident?

___ ___ ___ 3. Are facts, concepts, and principles ordered in a logical manner (e.g., chronologically, easy to difficult, etc.)?

___ ___ ___ 4. Does the material contain appropriate supplementary or alternative activities that contribute to or extend proposed learning?

___ ___ ___ 5. Is repetition and review of content material systematic and appropriately spaced?

Teacher Level

Yes	No	NA		
___	___	___	6.	Does the content appear accurate?
___	___	___	7.	Does the material avoid content which betrays prejudice, perpetuates stereotypes, or neglects the talents, contributions, or aspirations of any segment of the population?
___	___	___	8.	Can the material be readily adapted to meet individual learner differences in abilities and interests?
___	___	___	9.	Can pacing of the material be adapted to variations in learner rate of mastery?
___	___	___	10.	Is provision made for adapting, altering, or combining input and response modalities according to learner variations?
___	___	___	11.	Does the material incorporate evaluation items and procedures which are compatible with program objectives?
___	___	___	12.	Are there sufficient evaluative items to accurately assess student progress?
___	___	___	13.	Is performance assessed frequently enough to allow accurate assessment of student progress and continuous feedback to learner?
___	___	___	14.	Is the format uncluttered, grammatically correct, and free of typographical errors?
___	___	___	15.	Are illustrations and photographs clear, attractive, and appropriate to content?
___	___	___	16.	Are auditory components of adequate clarity and amplification?
___	___	___	17.	Are all necessary components either provided with the material or readily and inexpensively available?
___	___	___	18.	Can consumable portions of material be easily and inexpensively replaced or legally reproduced?
___	___	___	19.	Is cost reasonable in comparison with similar commercial materials or homemade alternatives?
___	___	___	20.	Does the publisher clearly state the rationale for selection of program elements, content, and methodology (e.g., choice may be based on tradition, survey of other materials, logic of subject matter, experimental evidence, unvalidated theory)?
___	___	___	21.	Are testimonials, research, and publisher claims clearly differentiated?
___	___	___	22.	Are reinforcement procedures and schedules clearly indicated?
___	___	___	23.	Is a variety of cuing and prompting techniques used?

Teacher Level

B. Matching Material to Learner

(This section involves the integration of the identified learner needs with the analyzed material characteristics to determine compatibility for instructional purposes.)

Yes	No	NA		
___	___	___	1.	Are stated objectives and scope of the material compatible with learner's need?
___	___	___	2.	Are prerequisite student skills/abilities needed to work comfortably and successfully with the material specified and compatible with the learner's characteristics?
___	___	___	3.	Are the skills and abilities needed by the instructor to work effectively with the material specified and compatible with instructor's expertise?
___	___	___	4.	Are levels of interest, abstraction, vocabulary, and sentence structure compatible with characteristics of the learner?
___	___	___	5.	Is the degree of required teacher involvement (constant interaction, supportive or monitoring role, largely student directed, variable) compatible with teacher resources and learner characteristics?
___	___	___	6.	Does the material incorporate motivational devices to sustain student interest which are appropriate to the learner's characteristics?
___	___	___	7.	Are input and output modalities (visual, auditory, motor, tactile) compatible with learner characteristics?
___	___	___	8.	Is the demonstration of task mastery (e.g., written test, performance test, oral test) compatible with or adaptable to intended learner's characteristics?
___	___	___	9.	Is the format of the material (e.g., game, book, filmstrip, etc.) compatible with the learner's mental and physical abilities?
___	___	___	10.	Is the durability and safety of the material adequate for the learner?
___	___	___	11.	Is information provided indicating (successful) field testing of the material with students similar in learning characteristics and interests to those of the learner?

IV. DECISION MAKING

The outcome of stage IV will be: a final determination of material suitability for use in a specific learning situation. Individualization of the decision making, based on items of priority concern, is implicit in this process.

Teacher Level

A. As a result of the review process, which questions have you identified as (most) critical to you in deciding to utilize the material with the learner?

B. On the basis of those critical priority concerns, is the material appropriate for specified learning requirements?

_____ Yes (implies accept)

_____ No (implies reject)

_____ Unsure (requires more analysis)

C. If unsure of appropriateness, are there other less critical questions which could be considered in making the decision to utilize the material?

D. On the basis of those additional considerations, is the material now deemed appropriate for specified learning requirements?

_____ Yes

_____ Unsure

E. If still unsure of appropriateness of the material, will comparison with other previewed material(s), in relation to critical questions, help identify the material which most closely approximates the specified learning requirements?

F. If still unsure of the appropriateness of the material, would modifications of the material render it usable?

1. Do you have access to resources for required modification?

G. If no:

1. Return to search process. Re-examine sources of material identification and information in locating other potential materials.

2. Review learner characteristics in an effort to modify requirements for material.

APPENDIX G

Preliminary Reading List for the Workshop

Blackwell, P., Engen, E., Fischgrund, J.E. & Zarcadoolas, C. Sentences and other systems : A language and learning curriculum for hearing-impaired children. Washington, D.C. : A.G. Bell Association for the Deaf, 1978 (Ch. III, "The process of curriculum design".)

Bowerman, M. Semantic and syntactic development. In R.L. Schiefelbusch (Ed.) Bases of language intervention. Baltimore : University Park Press, 1978.

Breen, M.P. & Candlin, C.N. The essentials of a communicative curriculum in language teaching. Applied Linguistics, 1980, 1 (2), 89-112.

Hart, B. & Rogers-Warren, A. A milieu approach to teaching language. In R.L. Schiefelbusch (Ed.) Language intervention strategies. Baltimore : University Park Press, 1978.

Kretschmer, R.R. & Kretschmer, L.W. The acquisition of linguistic and communicative competence : Parent-child interactions. Volta Review, 1979, 81, 306 - 322.

Miller, J.F. Assessing children's language behavior : A developmental process approach. In R.L. Schiefelbusch (Ed.) Bases of language intervention. Baltimore : University Park Press, 1978.

Power, D.J. On the provision of authentic language learning environments for hearing-impaired pupils. Paper delivered at the International Congress on Education of the Deaf, Hamburg, August, 1980. (Reprinted in this volume).

Rees, N.S. Pragmatics of language. In R.L. Schiefelbusch (Ed.) Bases of language intervention. Baltimore : University Park Press, 1978.

Ruder, K.F. Planning and programming for language intervention. In R.L. Schiefelbusch (Ed.) Bases of language intervention. Baltimore : University Park Press, 1978.

Waryas, C.L. & Stremel-Campbell, K. Grammatical training for the language-delayed child. In R.L. Schiefelbusch (Ed.) Language intervention strategies. Baltimore : University Park Press, 1978.

APPENDIX H

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